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Standard Metropolitan Statistical Classification

Proposed Changes in SMSA and SCSA Criteria for the 1980 Census

Prepared by
FEDERAL COMMITTEE ON STANDARD METROPOLITAN STATISTICAL AREAS

The Standard Metropolitan Statistical Classification is a definition of geographic areas designed primarily for the gathering and presentation of statistical information on metropolitan areas by Federal agencies. Conceptually, the "metropolitan areas" embodied in the definitions are single concentrations (some with multiple centers) of dense urban development, larger than a stated size, with strong internal commuting ties and weak ties to any other densely developed areas.[1]

Standard Metropolitan Statistical Classifications differ in concept from alternative definitions focused on large cities, such as the economic areas defined by the Bureau of Economic Analysis and the trading areas defined by various commercial organizations. Such alternative definitions are typically not limited to areas of relatively dense urban development, but assign every county in the country to the tributary area of some city. In contrast, the Standard Metropolitan Statistical Classification as currently defined comprises only about 15% of the Nation's area.

Throughout most of their history, the standard metropolitan statistical areas (SMSA's) have been designated and defined according to objective published criteria. These criteria have been developed to provide so far as possible consistent area definitions of all important metropolitan areas across the country, suitable for the gathering and presentation of general-purpose statistics.

Over the last two decades, SMSA's have been increasingly used by Federal and State Governments, not only as statistical units, but also for planning and program administration. The SMSA has also come to be used widely in the private sector as a basis for assessing markets and placing advertising. Since the original designation of 168 SMSA's in 1950, additions have been made until there are now 277 SMSA's in the United States plus four in Puerto Rico. In 1975 they had a total population of 155.5 million, approximately 73% of the U.S. total.

Since the introduction of the concept, SMSA's have been defined essentially for cities of 50,000 or more. They have been delimited in terms of whole counties (except in New England, where cities and towns are the building blocks), to include the county containing the central city plus contiguous counties socially and economically integrated with the city or the central county on the basis of specified criteria. The title of the SMSA includes the largest city plus up to two additonal cities meeting certain criteria.

Many counties have been added to existing SMSA's over time, reflecting the growth occurring in most metropolitan areas. In addition, the SMSA criteria have been reviewed periodically and modified. One of the earliest major criteria changes introduced was the use of commuting data, which first became available on a uniform national basis from the 1960 census. These data were adopted as the principal means of assessing the degree of social and economic integration of contiguous counties to the central county of the SMSA.

The number of SMSA's has increased since 1950 not only as a result of growth of cities past the 50,000 population level, but also because of changes in criteria permitting the qualification

[1] Some of the actual SMSA's defined by the criteria may depart from this concept in certain respects; for example, the fact that counties are used as building blocks results in the inclusion in certain SMSA's of extensive sparsely settled areas. For further discussion see Richard L. Forstall and Philip N. Fulton, "The Official SCSA/SMSA Definition; Concept and Practice" *Statistical Reporter*, October 1976, pp. 1–11.

of twin cities having a combined population of more than 50,000 (effective in 1959) and a city of 25,000 and over which, with adjacent densely settled places, has a population of over 50,000 and a minimum SMSA population of 75,000 (effective in 1971).

In 1976 the Federal Committee on Standard Metropolitan Statistical Areas began reevaluating the current criteria and considering what modifications might be introduced to refine the concept for the 1980 census. As a result of lengthy deliberations on various alternatives, the Committee has developed a new set of criteria proposed to be effective with the 1980 census.

Among the important changes in concepts and criteria incorporated in this proposal are the following. The italicized passages are those reflecting changes to the criteria currently in use.

1. *The current SMSA nomenclature will change.* To parallel this change, a standard consolidated statistical area would become a *Consolidated Metropolitan Statistical Area (CMSA).*

2. *Local Metropolitan Statistical Areas* will be defined (1) for a city of 50,000 and over; or (2) for a city of 25,000 and over which, with *adjacent densely built up territory* (not necessarily places), has a total population of *60,000* and an LMSA total population of *100,000 to 249,999.*

3. Metropolitan statistical areas above 250,000 population will be called *Major Metropolitan Statistical Areas* (MMSA's).

4. Titles of LMSA's and MMSA's will include in addition to the central city defined above, up to two additional cities having (1) 250,000 or more population or (2) one-third or more of the largest city's population but having *at least 25,000* population, *a place-of-work to place of residence ratio of at least 0.8,* and the *majority of its resident workers employed within its own limits.* This requires that any second or third city included in the titles have an important role as a place of employment in addition to a sizeable population.

5. The central core area for determining the level of commuting from contiguous counties includes any county having *5,000 or more population in the central city* plus *other counties having 50 percent or more of their population in the urbanized area of the principal central city.* These counties will be included in the metropolitan statistical area without regard to other criteria.

6. Contiguous counties will qualify on the basis of (1) at least 15 percent commuting of their employed population into the central core, and (2) two of three other criteria (minimum of *35* percent urban, *60* persons per square mile, and *20* percent population increase since 1970). Contiguous counties with at least 30 percent commuting will qualify *if they meet either the percent urban or population density requirement.*

7. A central city will be dropped from the title, or a contiguous county will be excluded from the metropolitan statistical area, if the 1980 census shows that it fails to meet the criteria defined here. Existing standard metropolitan statistical areas which fail to qualify under the new criteria will not be dropped until failing to qualify in two successive censuses, however.

The special criteria for New England, reflecting the relatively greater importance of the cities and towns as statistical reporting units, are still under consideration by the Committee, but it is anticipated that analogous changes will be made for them. Hence, the lists of counties below, which show the impact of criteria options, do not include any New England counties.

The only change proposed in the current criteria for defining Standard Consolidated Statistical Areas (aside from the name change to Consolidated Metropolitan Statistical Area) is to permit two or more contiguous metropolitan statistical areas meeting the specified criteria to qualify as an CMSA if they have a *total population over 1,000,000* (even though no one component metropolitan statistical area has reached that population).

Alternative Options

Two further options have been considered by the Committee for the criteria required for qualification of contiguous counties (Criteria 4 and 5). For these alternative options, the other criteria are the same as in the basic proposal. The more conservative option (Option A) makes assumptions identical to the recommended changes in regard to commuting and intercensal

population change, but it leaves the urban population percentage and population density cutoff at the current level of 25 and 50 respectively rather than at the higher levels recommended by the Committee in the basic proposal. This option would have the effect of disqualifying fewer contiguous counties than the proposed basic revision.

The second option (Option B) raises the commuting minimum from 15 to 20%, and provides that a county above the 40% commuting level need not meet any other criteria for inclusion in an LMSA or MMSA. This is a considerable tightening up of commuting requirements at the lower level of commuting, but a relaxation from the basic proposal at high commuting levels. The net effect is to disqualify more contiguous counties than would be the case in the basic proposal.

Lists of Potentially Affected Counties and SMSA's

The lists of counties following the text of the proposed new criteria were developed to illustrate the effects of the proposals, using current (1970) census data on population density, percent urban, commuting, and 1960–70 intercensal growth. However, asterisks in the lists indicate counties that would still qualify for inclusion in 1980 assuming observed population trends from 1970–75 continue until that time. In most cases the asterisked counties are those that would achieve the required population density by 1980, or that would have grown by at least 20% during the 1970–80 decade, and which meet the other required criteria. There are undoubtedly additional counties that would qualify by 1980 because of increased commuting, but in the absence of any comprehensive data on the subject later than 1970, no attempt has been made to identify such counties. Likewise, with a few exceptions, no counties have been flagged as likely to requalify by 1980 on the basis of an increased percentage urban.

Finally, there is a list of current standard metropolitan statistical areas that will probably not qualify in 1980 because of revised criterion 1(b). This revision is also likely to qualify a small number of new areas, but no definitive list can be prepared until the time of the 1980 census.

Comments

The criteria proposed for establishing the Standard Metropolitan Statistical Classification in 1980 are presented below for public review and comment. Comments on these materials should be sent by June 30, 1978 to Joseph W. Duncan, Director, Office of Federal Statistical Policy and Standards, U.S. Department of Commerce, Washington, D.C. 20230.

Criteria for Designation and Definition of Local Metropolitan Statistical Areas and Major Metropolitan Statistical Areas

(Proposed Draft)

1. Each metropolitan statistical area must include:
   (a) One city with 50,000 or more inhabitants, *or*
   (b) One city with 25,000 or more inhabitants, which with surrounding densely settled territory has an urbanized area population of at least 60,000 and for which the metropolitan statistical area defined by these criteria has a population of at least 100,000.
2. Metropolitan statistical areas with a population of 250,000 or more are recognized as Major Metropolitan Statistical Areas (MMSA's). Those below 250,000 population are designated Local Metropolitan Statistical Areas (LMSA's).

CENTRAL COUNTIES

3. Included in the metropolitan statistical area and designated as central counties are those counties which:

(a) Have at least 5,000 population in the central cities (those cities identified under Criterion 6 for inclusion in the title of the metropolitan statistical area) *or*

(b) Have 50.00% or more of their population in the urbanized area of the principal central city.

CONTIGUOUS COUNTIES

4. A county contiguous to a central county will be included in a metropolitan statistical area if at least 30.00% of the employed workers living in the county work in the central county or counties as defined in Criterion 3, *and*

   At least 35.00% of the population is urban, or the county has a population density of at least 60 persons per square mile.

5. A contiguous county will also be included in a metropolitan statistical area if two of the following three conditions are met:

   At least 35.00% of the population is urban, *or* the county has a population density of at least 60 persons per square mile, *or* the population growth in the last decennial period is at least 20.00%, *and*

   At least one of the following criteria of integration is met:

   (a) At least 15.00% of the employed workers living in the county work in the central county or counties of the area, *or*

   (b) The number of persons working in the county who live in the central county or counties is equal to at least 15.00% of the employed workers living in the county, *or*

   (c) The sum of the number of workers commuting to and from the central county or counties is equal to at least 20.00% of the employed workers living in the county.

TITLES

6. A city whose name is included in the title of a metropolitan statistical area is a central city of that metropolitan statistical area.
   The following rules are used for determining titles for metropolitan statistical areas:

   (a) The title of the metropolitan statistical area always includes the name of the city with the largest population.

   (b) There shall be no more than three city names in the title of any metropolitan statistical area. The addition of up to two city names may be made in the area title on the basis of the following:

   (1) Each additional city with a population of at least 250,000 is eligible for inclusion in the title.

   (2) A city of less than 250,000 population is eligible provided it is at least one-third as large as the largest city of the metropolitan statistical area and has at least 25,000 population, an employment/residence ratio of at least 0.8, and outcommuting of less than 50.00% of its resident labor force.

   (c) Area titles that include the names of more than one city shall start with the name of the largest city and list other cities in order of their population according to the most recent national census.

   (d) In addition to city names, the area titles contain the name of each State into which the metropolitan statistical area extends.

QUALIFYING CITIES IN ADJACENT COUNTIES

7. If two adjacent counties each have a city qualifying under Criterion 1 and the cities are within 25 miles of each other (downtown to downtown), they will be included in the same area unless there is definite evidence that the two cities are not closely integrated with one another socially and economically—for example, if the sum of the number of workers commuting between their two counties is less than 15.00% of the employed workers residing in the smaller county.

LOSS OF DESIGNATION OR TRANSFER TO ANOTHER METROPOLITAN STATISTICAL AREA

8. An established metropolitan statistical area defined on the basis of national census data shall lose its designation if it fails to meet the criteria for defining a metropolitan statisical area as measured by information reported in two successive national censuses. Those areas designated since the latest national census on the basis of current estimates will lose their designation if they fail to qualify in the national census following designation.

   The cities named in the title of a metropolitan statistical area by the application of Criteria 6(b) and 6(c) shall be dropped from the title if

they fail to meet those criteria as measured by information reported in the latest national census.

A contiguous county included in a metropolitan statistical area shall be excluded from that area if it fails to meet Criterion 4 or 5 as measured by information reported in the latest national census.

A contiguous county can be transferred from one metropolitan statistical area to another on the basis of data from a national census in cases in which (1) the application of Criterion 1 or Criterion 7 would lead to the designation of a new metropolitan statistical area or (2) the application of Criterion 4 or Criterion 5 shows greater integration with a different metropolitan statistical area.

Lists of Counties and SMSA's Affected

CURRENT SMSA COUNTIES THAT WOULD PROBABLY NOT QUALIFY FOR INCLUSION IN A METROPOLITAN STATISTICAL AREA UNDER THE PROPOSED NEW CRITERIA

(Note: Counties are listed in geographic order by State. Counties marked with an asterisk (*) do not qualify for inclusion on the basis of 1970 data but would probably qualify by 1980 based on growth trends since 1970.)

County	*State*	*SMSA*
Herkimer	NY	Utica-Rome
Ontario*	NY	Rochester
Salem*	NJ	Wilmington, DE-NJ-MD
Adams	PA	York
Monroe*	PA	Northeast Pennsylvania
Perry*	PA	Harrisburg
Somerset	PA	Johnstown
Susquehanna	PA	Binghamton, NY-PA
Carroll*	OH	Canton
Ottawa	OH	Toledo
Preble	OH	Dayton
Putnam	OH	Lima
Van Wert	OH	Lima
Clay	IN	Terre Haute
Marshall	IN	South Bend
Posey	IN	Evansville
Sullivan	IN	Terre Haute
Tipton	IN	Kokomo
Vermillion	IN	Terre Haute
Wells	IN	Fort Wayne
Clinton	IL	St. Louis, MO-IL
Menard	IL	Springfield
Woodford	IL	Peoria
Ionia*	MI	Lansing-East Lansing
Monroe*	MI	Toledo
Oceana	MI	Muskegon-Norton Shores-Muskegon Heights
Van Buren*	MI	Kalamazoo–Portage
St. Croix	WI	Minneapolis-St. Paul, MN-WI
Chisago*	MN	Minneapolis-St. Paul
Wright*	MN	Minneapolis-St. Paul
Andrew	MO	St. Joseph
Christian	MO	Springfield
Ray	MO	Kansas City
Butler	KS	Wichita
Jefferson	KS	Topeka
Osage	KS	Topeka
Cecil	MD	Wilmington, DE-NJ-MD
Amherst*	VA	Lynchburg
Appomattox	VA	Lynchburg
Botetourt	VA	Roanoke
Charles City	VA	Richmond
Craig	VA	Roanoke
Gloucester*	VA	Newport News-Hampton
Goochland	VA	Richmond
New Kent	VA	Richmond
Powhatan	VA	Richmond
Scott	VA	Johnson City-Kingsport-Bristol, TN-VA
Washington*	VA	Johnson City-Kingsport-Bristol, TN-VA
Suffolk city*	VA	Norfolk-Virginia Beach-Portsmouth
Wirt	WV	Parkersburg-Marietta
Brunswick	NC	Wilmington
Currituck	NC	Norfolk-Virginia Beach-Portsmouth, VA-NC
Madison	NC	Asheville
Stokes*	NC	Greensboro—Winston–Salem—High Point
Dorchester*	SC	Charleston-North Charleston
Bryan	GA	Savannah
Butts*	GA	Atlanta
Dade*	GA	Chattanooga, TN-GA
Effingham	GA	Savannah
Fayette*	GA	Atlanta
Jones	GA	Macon
Lee	GA	Albany
Paulding*	GA	Atlanta
Twiggs	GA	Macon
Walton*	GA	Atlanta
Baker	FL	Jacksonville
Nassau	FL	Jacksonville
St. Johns*	FL	Jacksonville

County	*State*	*SMSA*
Santa Rosa*	FL	Pensacola
Wakulla	FL	Tallahassee
Cheatham*	TN	Nashville-Davidson
Dickson*	TN	Nashville-Davidson
Marion	TN	Chattanooga
Robertson*	TN	Nashville-Davidson
Sequatchie	TN	Chattanooga
Union	TN	Knoxville
Williamson*	TN	Nashville-Davidson
Baldwin	AL	Mobile
Elmore*	AL	Montgomery
Limestone	AL	Huntsville
St. Clair*	AL	Birmingham
Shelby*	AL	Birmingham
Walker*	AL	Birmingham
Rankin*	MS	Jackson
Stone	MS	Biloxi-Gulfport
Benton	AR	Fayetteville-Springdale
Crawford	AR	Fort Smith
Little River	AR	Texarkana
Grant	LA	Alexandria
Livingston*	LA	Baton Rouge
Le Flore*	OK	Fort Smith, AR-OK
McClain	OK	Oklahoma City
Mayes	OK	Tulsa
Osage	OK	Tulsa
Pottawatomie*	OK	Oklahoma City
Rogers	OK	Tulsa
Sequoyah	OK	Fort Smith, AR
Wagoner	OK	Tulsa
Callahan	TX	Abilene
Hardin	TX	Beaumont-Port Arthur-Orange
Guadalupe*	TX	San Antonio
Hood*	TX	Dallas-Fort Worth
Jones	TX	Abilene
Liberty*	TX	Houston
Montgomery*	TX	Houston
Waller	TX	Houston
Williamson*	TX	Austin
Wise	TX	Dallas-Fort Worth
Douglas	CO	Denver
Gilpin	CO	Denver
Teller	CO	Colorado Springs
Sandoval	NM	Albuquerque

CURRENT SMSA COUNTIES THAT WOULD PROBABLY NOT QUALIFY FOR INCLUSION IN A METROPOLITAN STATISTICAL AREA UNDER ALTERNATIVE CRITERIA OPTION A

(Note: Counties are listed in geographic order by State. Counties marked with an asterisk (*) do not qualify for inclusion on the basis of 1970 data but would probably qualify by 1980 based on growth trends since 1970.)

County	*State*	*SMSA*
Herkimer	NY	Utica-Rome
Salem*	NJ	Wilmington, DE-NJ-MD
Adams	PA	York
Perry*	PA	Harrisburg
Somerset	PA	Johnstown
Susquehanna	PA	Binghamton, NY-PA
Preble	OH	Dayton
Putnam	OH	Lima
Van Wert	OH	Lima
Marshall	IN	South Bend
Sullivan	IN	Terre Haute
Ionia*	MI	Lansing-East Lansing
Oceana	MI	Muskegon-Norton Shores-Muskegon Heights
Van Buren*	MI	Kalamazoo-Portage
St. Croix*	WI	Minneapolis-St. Paul, MN-WI
Chisago*	MN	Minneapolis-St. Paul
Christian	MO	Springfield
Butler	KS	Wichita
Jefferson	KS	Topeka
Osage	KS	Topeka
Cecil	MD	Wilmington, DE-NJ-MD
Appomattox	VA	Lynchburg
Botetourt	VA	Roanoke
Charles City	VA	Richmond
Craig	VA	Roanoke
Gloucester*	VA	Newport News-Hampton
Goochland	VA	Richmond
New Kent	VA	Richmond
Powhatan	VA	Richmond
Scott	VA	Johnson City-Kingsport-Bristol, TN-VA
Washington*	VA	Johnson City-Kingsport-Bristol, TN-VA
Suffolk city*	VA	Norfolk-Virginia Beach-Portsmouth
Wirt	WV	Parkersburg-Marietta
Brunswick	NC	Wilmington
Currituck	NC	Norfolk-Virginia Beach-Portsmouth VA-NC
Madison	NC	Asheville
Bryan	GA	Savannah
Effingham	GA	Savannah
Jones	GA	Macon
Lee	GA	Albany
Twiggs	GA	Macon
Wakulla	FL	Tallahassee
Cheatham*	TN	Nashville-Davidson
Dickson*	TN	Nashville-Davidson

County	*State*	*SMSA*
Marion	TN	Chattanooga
Sequatchie	TN	Chattanooga
Union*	TN	Knoxville
St. Clair*	AL	Birmingham
Shelby*	AL	Birmingham
Walker*	AL	Birmingham
Stone	MS	Biloxi-Gulfport
Benton	AR	Fayetteville-Springdale
Grant	LA	Alexandria
Le Flore*	OK	Fort Smith, AR
Mayes*	OK	Tulsa
Osage	OK	Tulsa
Sequoyah	OK	Fort Smith, AR
Callahan	TX	Abilene
Guadalupe*	TX	San Antonio
Hood*	TX	Dallas-Fort Worth
Jones	TX	Abilene
Liberty*	TX	Houston
Montgomery*	TX	Houston
Waller	TX	Houston
Williamson*	TX	Austin
Wise	TX	Dallas-Fort Worth
Douglas	CO	Denver
Gilpin	CO	Denver
Teller	CO	Colorado Springs
Sandoval	NM	Albuquerque

CURRENT SMSA COUNTIES THAT WOULD PROBABLY NOT QUALIFY FOR INCLUSION IN A METROPOLITAN STATISTICAL AREA UNDER ALTERNATIVE CRITERIA OPTION B

(Note: Counties are listed in geographic order by State. Counties marked with an asterisk (*) do not qualify for inclusion on the basis of 1970 data but would probably qualify by 1980 based on growth trends since 1970.)

County	*State*	*SMSA*
Herkimer	NY	Utica-Rome
Montgomery	NY	Albany-Schenectady-Troy
Ontario*	NY	Rochester
Salem	NJ	Wilmington, DE-NJ-MD
Adams	PA	York
Carbon	PA	Allentown-Bethlehem-Easton
Chester	PA	Philadelphia
Monroe	PA	Northeast Pennsylvania
Perry*	PA	Harrisburg
Somerset	PA	Johnstown
Susquehanna	PA	Binghamton, NY-PA
Auglaize	OH	Lima
Belmont	OH	Wheeling, WV-OH
Champaign	OH	Springfield
Fulton	OH	Toledo
Miami	OH	Dayton
Ottawa	OH	Toledo
Preble	OH	Dayton
Putnam	OH	Lima
Van Wert	OH	Lima
Adams	IN	Fort Wayne
Clay	IN	Terre Haute
Gibson	IN	Evansville
Marshall	IN	South Bend
Posey	IN	Evansville
Sullivan	IN	Terre Haute
Tipton	IN	Kokomo
Vermillion	IN	Terre Haute
Wells	IN	Fort Wayne
Clinton	IL	St. Louis, MO-IL
Menard	IL	Springfield
Woodford	IL	Peoria
Barry	MI	Battle Creek
Ionia	MI	Lansing-East Lansing
Monroe*	MI	Toledo
Oceana	MI	Muskegon-Norton Shores-Muskegon Heights
St. Clair	MI	Detroit
Van Buren*	MI	Kalamazoo-Portage
St. Croix	WI	Minneapolis-St. Paul, MN-WI
Washington	WI	Milwaukee
Chisago*	MN	Minneapolis-St. Paul
Wright*	MN	Minneapolis-St. Paul
Butler	KS	Wichita
Jefferson	KS	Topeka
Osage	KS	Topeka
Cecil	MD	Wilmington, DE-NJ-MD
Appomattox	VA	Lynchburg
Charles City	VA	Richmond
Craig	VA	Roanoke
Gloucester*	VA	Newport News-Hampton
James City	VA	Newport News-Hampton
New Kent	VA	Richmond
Powhatan	VA	Richmond
Washington*	VA	Johnson City-Kingsport-Bristol, TN-VA
Suffolk city*	VA	Norfolk-Virginia Beach-Portsmouth
Brunswick	NC	Wilmington
Currituck	NC	Norfolk-Virginia Beach-Portsmouth, VA-NC
Madison	NC	Asheville
Pickens	SC	Greenville-Spartanburg

County	*State*	*SMSA*
Bryan	GA	Savannah
Butts*	GA	Atlanta
Jones	GA	Macon
Twiggs	GA	Macon
Walton	GA	Atlanta
Baker	FL	Jacksonville
Nassau	FL	Jacksonville
Osceola	FL	Orlando
St. Johns	FL	Jacksonville
Santa Rosa*	FL	Pensacola
Clark	KY	Lexington-Fayette
Dickson	TN	Nashville-Davidson
Marion	TN	Chattanooga
Robertson*	TN	Nashville-Davidson
Rutherford	TN	Nashville-Davidson
Sequatchie	TN	Chattanooga
Unicoi	TN	Johnson City-Kingsport-Bristol, TN-VA
Baldwin	AL	Mobile
Elmore*	AL	Montgomery
Limestone	AL	Huntsville
Marshall	AL	Huntsville
St. Clair*	AL	Birmingham
Shelby*	AL	Birmingham
Walker*	AL	Birmingham
Stone	MS	Biloxi-Gulfport
Benton	AR	Fayetteville-Springdale
Little River	AR	Texarkana
Grant	LA	Alexandria
Livingston*	LA	Baton Rouge
Webster	LA	Shreveport
Le Flore*	OK	Fort Smith, AR
McClain	OK	Oklahoma City
Mayes	OK	Tulsa
Osage	OK	Tulsa
Pottawatomie*	OK	Oklahoma City
Rogers	OK	Tulsa
Sequoyah	OK	Fort Smith, AR-OK
Brazoria	TX	Houston
Callahan	TX	Abilene
Comal	TX	San Antonio
Guadalupe*	TX	San Antonio
Hardin	TX	Beaumont-Port Arthur-Orange
Hays	TX	Austin
Hood*	TX	Dallas-Fort Worth
Jones	TX	Abilene
Liberty*	TX	Houston
Waller	TX	Houston
Williamson*	TX	Austin
Wise	TX	Dallas-Fort Worth
Teller	CO	Colorado Springs

NONMETROPOLITAN COUNTIES THAT WOULD PROBABLY QUALIFY FOR INCLUSION IN A METROPOLITAN STATISTICAL AREA UNDER THE PROPOSED NEW CRITERIA

(Note: Counties are listed in geographic order by State. Counties marked with an asterisk (*) do not qualify for inclusion on the basis of 1970 data but would probably qualify by 1980 based on growth trends since 1970.)

County	*State*	*SMSA*
Greene*	NY	Albany-Schenectady-Troy
Hunterdon	NJ	Newark
Sussex	NJ	Newark
Wyoming*	PA	Northeast Pennsylvania
Brown*	OH	Cincinnati
Mason*	IL	Peoria
Cass	NE	Omaha
Calvert	MD	Washington, DC-MD-VA
Frederick*	MD	Washington, DC-MD-VA
Pleasants*	WV	Parkersburg-Marietta
Davie*	NC	Greensboro—Winston-Salem—High Point
Lincoln*	NC	Charlotte-Gastonia
Bartow*	GA	Atlanta
Coweta*	GA	Atlanta
Spalding	GA	Atlanta
Carter*	KY	Huntington-Ashland, WV-KY-OH
Grainger*	TN	Knoxville
Sevier*	TN	Knoxville
Franklin*	AL	Florence
Madison*	MS	Jackson
Lonoke*	AR	Little Rock-North Little Rock
Plaquemines*	LA	New Orleans
St. Charles	LA	New Orleans
Logan*	OK	Oklahoma City
Bastrop*	TX	Austin
Kendall*	TX	San Antonio
Lampasas*	TX	Killeen-Temple
Yamhill	OR	Portland

NONMETROPOLITAN COUNTIES THAT WOULD PROBABLY QUALIFY FOR INCLUSION IN A METROPOLITAN STATISTICLA AREA UNDER ALTERNATIVE CRITERIA OPTION A

(Note: Counties are listed in geographic order by State. Counties marked with an asterisk (*) do not qualify for inclusion on the basis of 1970 data but would probably qualify by 1980 based on growth trends since 1970.)

County	*State*	*SMSA*
Greene*	NY	Albany-Schenectady-Troy
Schoharie*	NY	Albany-Schenectady-Troy
Hunterdon	NJ	Newark
Sussex	NJ	Newark
Wyoming*	PA	Northeast Pennsylvania
Brown*	OH	Cincinnati
Greene*	IN	Bloomington
Harrison*	IN	Louisville, KY-IN
Fulton*	IL	Peoria
Mason*	IL	Peoria
Clinton*	MO	Kansas City
Polk*	MO	Springfield
Cass	NE	Omaha
Calvert	MD	Washington, DC-MD-VA
Frederick	MD	Washington, DC-MD-VA
Pleasants	WV	Parkersburg-Marietta
Davie*	NC	Greensboro—Winston-Salem—High Point
Lincoln*	NC	Charlotte-Gastonia
Bartow	GA	Atlanta
Coweta	GA	Atlanta
Spalding	GA	Atlanta
Worth*	GA	Albany
Carter*	KY	Huntington-Ashland, WV-KY-OH
Grant*	KY	Cincinnati
Grainger*	TN	Knoxville
Sevier*	TN	Knoxville
Blount*	AL	Birmingham
Franklin*	AL	Florence
Madison*	MS	Jackson
Lonoke*	AR	Little Rock-North Little Rock
Iberville	LA	Baton Rouge
Plaquemines	LA	New Orleans
St. Charles	LA	New Orleans
Logan*	OK	Oklahoma City
Bastrop*	TX	Austin
Kendall*	TX	San Antonio
Lampasas*	TX	Killeen-Temple
Upshur*	TX	Longview
Valencia*	NM	Albuquerque
Columbia*	OR	Portland
Yamhill	OR	Portland

NONMETROPOLITAN COUNTIES THAT WOULD PROBABLY QUALIFY FOR INCLUSION IN A METROPOLITAN STATISTICAL AREA UNDER PROPOSED CRITERIA OPTION B

(Note: Counties are listed in geographic order by State. Counties marked with an asterisk (*) do not qualify for inclusion on the basis of 1970 data but would probably qualify by 1980 based on growth trends since 1970.)

County	*State*	*SMSA*
Sussex	NJ	Newark
Wyoming*	PA	Northeast Pennsylvania
Brown*	OH	Cincinnati
Cass	NE	Omaha
Calvert	MD	Washington, DC-MD-VA
Pleasants*	WV	Parkersburg-Marietta
Davie*	NC	Greensboro—Winston-Salem—High Point
Lincoln*	NC	Charlotte-Gastonia
Grainger*	TN	Knoxville
Sevier*	TN	Knoxville
Madison*	MS	Jackson
Lonoke*	AR	Little Rock
Plaquemines*	LA	New Orleans
St. Charles	LA	New Orleans
Logan*	OK	Oklahoma City
Bastrop*	TX	Austin
Kendall*	TX	San Antonio

CURRENT SMSA'S THAT MAY NOT MEET PROPOSED CRITERION 1(b) AS OF 1980

Bloomington, Indiana
Bryan-College Station, Texas
Gadsden, Alabama
Kankakee, Illinois
La Crosse, Wisconsin
Panama City, Florida
St. Cloud, Minnesota
Sherman-Denison, Texas
Grand Forks, North Dakota-Minnesota

Final Report of the Bellagio Conference on Privacy, Confidentiality, and the Use of Government Microdata for Research and Statistical Purposes

DAVID H. FLAHERTY
Conference Chairman and Organizer

Introduction

For the last three years the Privacy Project of the University of Western Ontario has been studying the problems of privacy and confidentiality involved in the collection and dissemination of individual microdata by central statistical agencies in Canada, the United States, the Federal Republic of Germany, Sweden, and the United Kingdom. The focus has included descriptions of the personal data collected, as well as the process of formulating policy for data protection and dissemination. The Privacy Project was originally funded in the Ford Foundation's Competition on the Common Problems of Advanced Industrial Societies with David H. Flaherty and Edward H. Hanis as co-principal investigators.

The custodians of individual data (microdata) collected by governments for statistical purposes do maintain a very high level of concern for the protection of confidentiality. In fact, a basic problem for researchers is to persuade officials in central statistical agencies that they should be doing more, within the boundaries of maintaining confidentiality, to satisfy demands for access to data for research and statistical purposes. The publication of aggregated statistics and the provision of special tabulations is not satisfying the needs of researchers, in and out of government, in a wide variety of fields, including demography, sociology, economics, medical research, and planning of various sorts. The provision of public use samples from censuses of population and social surveys, which is currently undertaken in the United States and Canada, is only one of the ways in which researchers' needs for access to microdata, in many cases in anonymized form, can be more adequately satisfied.

Through a process of intensive interviewing in each country, the Privacy Project identified key personnel in each central statistical agency, who are directly involved in the formulation of policy on confidentiality and data dissemination. They face common problems in fashioning ways to protect the confidentiality of data they release to the general public as well as researchers. Yet the principal decision-makers from these several countries have had surprisingly little contact with one another on these specific issues. The Bellagio Conference brought together leading figures from each of the five statistical agencies for a thorough discussion of common problems and solutions.

Since it is necessary to demonstrate to custodians of government data that a real need exists for access to microdata for research and statistical purposes, the Bellagio Conference included participants who are leading exponents of the use of microdata from each country. These researchers were invited to discuss the uses of microdata based on their own activities and other major research undertakings with which they are familiar.

Five national case studies prepared by David H. Flaherty, served as background reading for discussions at the Conference of the current situation in each country. These case studies will be published in a volume tentatively entitled "Privacy and Government Data Banks. An In-

Note.—This Conference was held at the Rockefeller Foundation's Bellagio Study and Conference Center, Bellagio, Lake Como, Italy, August 16–20, 1977. The report is reprinted here with the permission of Mr. Flaherty.

ternational Perspective on Research and Statistical Uses of Government Data" (Science Associates/International, Inc., New York, forthcoming, 1978).

The invited participants in the Conference, who are listed below, met for a total of eighteen hours of formal sessions from August 16 to 20, 1977. Since the participants lived together at the Villa Serbelloni in Bellagio for the period of the Conference, there were many more hours of informal discussions. After a general introductory session on August 16 in which participants described their particular interests in the topic of the Conference, there were separate sessions on August 17 and 18 devoted to a consideration of the specific situation in the United Kingdom, Canada, Sweden, the United States, and the Federal Republic of Germany. Although these discussions of specific countries were wide-ranging in character, a number of basic themes began to emerge.

On August 19 and 20 there were a number of general sessions which had evolved on the basis of previous discussions and specific suggestions from participants. At the outset of these general discussions the group decided to formulate a series of general principles or propositions pertaining to research and statistical uses of data held by government agencies. A series of eighteen general Bellagio Principles subsequently evolved on the basis of group discussions. The Principles are presented below in the sequence in which they emerged and were debated. They should be interpreted collectively, since general statements are frequently qualified in subsequent principles. None of the Principles should be attributed to any one participant, nor are they binding on individual participants in the Conference. Nevertheless, it was agreed that the Principles would be made available in this *Report* of the Bellagio Conference, which has been reviewed by all participants.

The Bellagio Principles: A Discussion

1. *National statistical offices should provide researchers both inside and outside government with the broadest practicable access to information within the bounds of accepted notions of privacy and legal requirements to preserve confidentiality.*

Discussion:

The participants substantially agreed on the importance of facilitating access to government data for research and statistical purposes. They thought it was important to establish this basic trust toward openness, since researchers perform a public service. It was understood that national agencies have to allocate scarce resources between researchers and other public users.

2. *Legal and social constraints on the dissemination of microdata are appropriate when they reflect the interests of respondents and the general public in an equitable manner. These constraints should be re-examined when they result in the protection of vested interests, or the failure to disseminate information for statistical and research purposes (i.e., without direct consequences for a specific individual).*

Discussion:

The participants recognized that data dissemination could not take place in an unrestricted manner because of concern for privacy and legal considerations. At the same time the public has a substantial interest in beneficial uses of data. The participants thought that some of the current reasons for restricting access to data did not adequately reflect the public interest in data use.

3. *All copies of government data collected or used for statistical purposes should be rendered immune from compulsory legal process by statute.*

Discussion:

This particular statement reflected the consensus that individual data used for research and statistical purposes should not directly result in decisions about a particular individual, unless the research project specifically involved such a result, as in some research in the drug treatment field.

4. *In making data available to researchers national statistical offices should provide some means to ensure that decisions on selective access are subject to independent review and appeals.*

Discussion:

The participants agreed that access to government information for research and statistical purposes should be non-discriminatory. In particular, decisions on access to data should not rest solely on the hands of members of the bureaucracy. If a researcher believes that he or she has a legitimate right of access to data, a means of appealing a negative decision should exist.

5. *The distinction between a research file, in the sense of a statistical record (as defined in the 1977 report of the U.S. Privacy Protection Study Commission), and other micro files is fundamental in discussions of privacy and dissemination of microdata. All dissemination of government microdata discussed in connection with the Bellagio Principles is assumed to be a transfer of data to research files for use exclusively for research and statistical purposes.*

Discussion:

The discussion at Bellagio emphasized the importance of the distinction between research/statistical and administrative/regulatory uses of individual information. The report of the American Privacy Protection Study Commission on *Personal Privacy in an Information Society* defined a research and statistical record as "any item, collection or grouping of information maintained in any form of record *solely* for a research or statistical purpose." Research and statistical data is "not intended to be used, in whole or in part, for making a decision about an individual that is not an integral part of the particular research project." The discussions at Bellagio emphasized the importance of informing data disseminators, respondents, and data users of the distinction.

6. *There are valid and socially-significant fields of research for which access to microdata is indispensible. Statistical agencies are one of the prime sources of government microdata.*

Discussion:

After considerable debate and a process of mutual education in the early stages of the Bellagio Conference, the participants concluded that a number of important fields of research required access to microdata, especially from government sources. It was also recognized that not every researcher requires access to microdata either in anonymized or identifiable form. There was a further sense that statistical agencies in particular should collect statistics on the utilization of microdata in order to justify the efforts and risks involved.

7. *Public use samples of anonymized individual data are one of the most useful ways of disseminating microdata for research and statistical purposes.*

8. *Techniques now exist that permit preparation of public use samples of value for research purposes within the constraints imposed by the need for confidentiality. Countries with strict statutes on confidentiality have prepared public use samples.*

Discussion:

There was a general consensus that public use samples were the single most important way in which central statistical agencies could assist the research community. The discussion emphasized the more than fifteen years experience with public use samples in the United States without any untoward results in terms of detriment to an individual. Public use samples provide researchers with access to microdata at low cost and with great flexibility for their research needs.

9. *There are legitimate research purposes requiring the use of individual data for which public use samples are inadequate.*

10. *There are legitimate research uses which require the utilization of identifiable data within the framework of concern for confidentiality.*

Discussion:

The participants wished to emphasize the legitimacy of research and statistical activities involving the need for access to identifiable individual information. They also recognized that such sensitive uses of data require substantial justification in terms of potential payoffs to the general public. Nevertheless, data protection should be implemented in such a fashion as to make possible the conduct of such important types of research as longitudinal studies.

11. *Other techniques of extending to approved research the same rights and obligations of access enjoyed by officers of the government agency need to be considered in terms of better access.*

Discussion:

The participants concluded that researchers share with government statisticians a high level of concern for the confidentiality of personal information. At the same time, non-governmental researchers do not normally enjoy the same level of access to individual data enjoyed by employees of a government agency. Within the framework of Principle No. 1, the Conference concluded that various means should be explored to improve access for research and statistical purposes, so as to improve on existing uses of government information. In particular, the participants focused on the possibility of swearing-in researchers for a tempor-

ary period as employees of a statistical agency. Existing examples of mutual cooperation between a statistical agency and researchers were applauded.

12. *There is considerable potential for development of more economical and responsive customized-user services, such as 1) record linkage under the protection of the statistical office, 2) special tabulations, 3) public use samples for special purposes. Such services must often involve some form of cost recovery.*

Discussion:

Even if one takes into account the broad mandates and heavy current burdens of statistical agencies, more can be done to assist research and statistical users of data from outside the agency. The discussion emphasized the technical capacity of statistical agencies to implement in a more economical and responsive manner the three forms of services mentioned in Principle 12. Contemporary restraints on the budgets of government agencies emphasize the importance of cost recovery for the agency in connection with such forms of dissemination.

13. *Some research and statistical activities require the linking of individual data for research and statistical purposes. The methods that have been developed to permit record linkage without violating law or social custom regarding privacy should be used whenever possible.*

Discussion:

The participants recognized that the linkage of individual data, even for research and statistical purposes, was one of the most sensitive uses of personal information, particularly in the minds of the general public. Nevertheless, the Conference concluded that it was important to make a general statement recognizing the legitimacy of certain forms of record linkages, such as in various types of medical and epidemiological research. It would not be in the public interest absolutely to prohibit the linkage of personal records for research and statistical purposes.

14. *Professional or national organizations should have codes of ethics for their disciplines concerning the utilization of individual data for research and statistical purposes. Such ethical codes should furnish mutually agreeable standards of behavior governing relations between providers and users of governmental data.*

15. *Users of microdata should be required to sign written undertakings for the protection of confidentiality.*

Discussion:

After considerable emphasis on the responsibility of government agencies to improve data dissemination, the Conference turned to the counter-issue of encouraging researchers to share accountability for data protection with government agencies. Despite long traditions of concern for confidentiality within particular disciplines in the social sciences, individual researchers must be continually sensitized to the need for care and caution with respect to the protection of confidential information. There was overwhelming agreement on the desirability of up-to-date ethical codes and the utilization of written undertakings to govern data dissemination.

16. *Considerable efforts should be made to explain to the general public the procedures in force for the protection of the confidentiality of microdata collected and disseminated for research and statistical purposes.*

Discussion:

The Conference felt that there is considerable public misunderstanding of the special nature of data use involved in research and statistical activities. Given widespread suspicions of the abuse of administrative data by government agencies, it is difficult to convince the general public of the long-standing concern for confidentiality of statistical agencies in particular. Yet, however demanding, such efforts at public relations on the part of statistical agencies must be continued and improved. Certain statistical agencies have made considerable advances in improving general contacts with the public, including attempts to explain the purposes for which data is being collected. The Conference strongly supported the notion of informed consent in data collection and use, whenever practicable. Since individual consent is not always desirable or practical, such as in certain types of medical research, some form of surrogate has to be considered under special circumstances.

17. *The right of privacy is evolving rather than static, and closely related to how statistics and research are perceived. Therefore, statisticians and researchers have a responsibility to contribute to policy and legal definitions of privacy.*

Discussion:

The thrust of this particular Principle is to emphasize that policies on data protection have often been formulated in the past without adequate attention to the specialized nature of research and statistical uses of government data. Both statisticians and researchers have been too hestitant to involve themselves in public debates on these issues and to articulate their particular traditions and concerns. This Principle emphasizes the importance of good public relations on the part of both statisticians and researchers.

18. *Public concern about privacy and confidentiality in the collection and utilization of individual data can be addressed in part as follows:*
    (1) *voluntary data collection, whenever practicable;*
    (2) *advanced general notice to respondents and informed consent, whenever practicable;*
    (3) *provisions for public knowledge of data uses;*
    (4) *public education on the distinction between administrative and research uses of information.*

Discussion:

The particular concerns of the Bellagio Conference with research and statistical uses of data meant that ways of protecting personal privacy as such were not a central focus of discussion. Nevertheless, the Conference closed with the presentation of a general resolution emphasizing ways in which statistical agencies in particular could attempt to alleviate public concern with problems of privacy and confidentiality. In many ways Principle 18 reiterates general tendencies included in earlier Principles.

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Major Enhancements to Table Producing Language

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In the 3 years since the Bureau of Labor Statistics' Table Producing Language (TPL) was announced in the April 1975 issue of the *Statistical Reporter,* the system has undergone major improvements at BLS. A new version, now publicly available, is significantly less costly to run; easier to use because of the extended use of ordinary English words; more powerful owing to the addition of commands to compile and display quantile, median, maximum and minimum values; and it can proceed according to values calculated during a run. An important major new feature is its ability to drive electronic photocomposers so that its table output can be typeset without the usual cost of that approach.

While these improvements were being made, use of the older version of the system spread worldwide to nearly 170 installations. The largest category of users in the United States is composed of 60 governmental agencies of all levels: Federal (with both houses of Congress), State, county, and city. Another large group includes commercial enterprises in the United States and Canada, such as banks, insurance companies, computer time-sharing services, heavy industries, pharmaceutical houses, and research and planning organizations. Nearly 20 major universities have copies of the old version.

More than 40 copies have been distributed overseas. Half of these are at national statistical agencies, most of which are in Europe, but also are found from North Africa and the Middle East to Australia, Thailand, and New Zealand.

The Committee on the Evaluation of Statistical Program Packages of the American Statistical Association studied 12 leading software packages that produce tabulations. Two main characteristics were evaluated—tabulating power and simplicity of language. The Table Producing Language was judged best. Using integer scoring from 1 (poor) to 5 (excellent) for nine different attributes within the two categories, all systems studied scored well above the minimum figure. However, TPL was the only one to score the maximum possible 45. The nearest competitor, scoring 36 points, was GENSTAT, developed at the Rothamsted Experimental Station, Harpenden, England.

Enhancements

In the past 3 years, enhancements were put in place as they were developed for use by Bureau staff. They were not released to other TPL users because of the rapidity and frequency of changes. The Bureau wanted to be certain that the new features worked properly and the intense use within BLS (several thousand times each month) provided an excellent test bed.

There has been a significant reduction in processing time, averaging 30%. Previously, when processing sequential files where records are arranged in hierarchical order the system inspected all data from top to bottom in each set, even if only data at the top most level was needed. Now the system moves on after the figure has been found. In some cases, processing time has been reduced as much as 90%.

The Table Producing Language is designed so that users do not need to know how to write computer programs. The main requirement is that the user state what is wanted and allow the system to figure out how to get the results. The earlier version of TPL required the use of symbols in certain instances, an approach that programmers and others, such as statisticians and mathematicians, accustomed to using symbols, found acceptable. Many users, however, were not familiar with this approach. The system was changed so that in most instances either English words or symbols are equally acceptable to the system.

The ability to select alternate courses in a calculating sequence, depending on the results of earlier computations, was added to the system. This facility, called "conditional compute", was given one of the highest priorities for inclusion by most users of TPL.

Another significant addition is a set of elementary statistical functions, such as the calculation and display of quantiles, medians, maxima and minima. For example, the median provides a more appropriate measure of central tendency than does the mean when the observations have a skewed distribution. TPL provides an unusual new capability for these calculations. The user may provide an Interval Size Designation (ISD) to chose the most cost/effective method of calculation. All of these measures are important in certain BLS programs and are expected to find wide use elsewhere.

Through a statement prepared by the user that defines the chronological relationship among the dates, a new TPL feature enables automatic changes in the format of statistical tables that are identical from month to month except for a change in the reference month. In the past, special steps had to be taken to change each date shown, and in some cases this was quite burdensome.

Now, for each processing cycle, only the current date need be provided. The automatic facility that changes table reference dates accordingly is called the "relative time" feature.

An early version of TPL provided a facility which used the computer line printer to prepare tables for photo-offset printing. This extension of TPL allows the user to surround the tabulated results with a clean and concise framework of explanatory information, such as boxheads for columns and stubs, as well as footnotes and similar data that are relevant to the information being presented. Decimal points and special symbols, such as dollar and percent signs, are available. These and many other features can contribute to the creation of tables that are acceptable for photo-offset printing. Current enhancements include using subheads to span the table within the data; cutting tables that are wider than a page and automatically stacking the table correctly on succeeding pages; inserting vertical rules which can be limited to boxheads; and arranging footnotes in a standardized two-column format.

The new TPL version has also been extended to drive the U.S. Government Printing Office's electronic photocomposition machines. In the past, these machines required a special computer program for each table format to be printed. For BLS, this was an impractical task as the variety of BLS tabular presentations is practically unlimited. Because TPL is a generalized tool, the need to write tailored programs for each different format to be composed was removed. Now the facility comprises all of its earlier wide-ranging print control capabilities plus opportunities for typographic enhancements via electronic photocomposition. Users have a wide choice of boldness and size in a wide range of font styles, boldness in vertical and horizontal lines, underscores to indicate totals, and so forth. In brief, tables can be printed that appear to be typeset without the usual cost of that approach.

System Distribution

Documents describing the Table Producing Language are available—an introductory pamphlet outlining the principles on which the language and system are based, and a guide for those who want to learn how to use the language. The Bureau's Division of Training offers courses to meet the different needs of managers, beginners, and advanced users. There is a fee for participants from outside the Bureau should the class require the student to use computer time.

The TPL system is written in XPL, a dialect of PL/1, and is distributed in object code form because a special compiler is needed. The system transmittal tape is recorded as an IBM standard labelled, 9 track, 1600 BPI tape, unless otherwise specified. The tape contains all the data sets needed to install and test the system. Complete installation and user documentation will accompany the tape. There is a charge of $300 to recover the administrative costs of transcribing the system and providing the associated documentation and instructions.

Planned Additional Enhancements

Bureau systems designers are working on a few additional enhancements which are expected to complete the development of TPL.

An experimental version of the system has been coupled with the Bureau's data base management system (DBMS), a commercial product

called TOTAL. Most Bureau data processing is designed around the DBMS and so the connection between TPL and TOTAL adds an important dimension to BLS capabilities for improved and speedier results. For example, ordinarily, data processing rules do not permit the simultaneous use of more than one data file. A unique approach to the design of systems at BLS will allow users to compile tables that, in one run, draw on data from two files or more, simultaneously.

Among the final TPL improvements there will be a facility for great flexibility in locating the base for calculating percentages. The base may be located anywhere in a table display, at the head or bottom of any one or all columns, or at the left or right hand end of any or all rows, as well as any other cell in the body of the table. The final version of TPL is expected to be released in about a year.

A Framework for Planning U.S. Federal Statistics, 1978–1989

(Draft Chapters)

FINANCIAL STATISTICS

Financial statistics may be broadly defined as those associated with private and public money and credit transactions. They cover the banking system, the nonbank investment community such as securities and mortgage markets, and income and balance sheet information on households, business, and governments.

This chapter focuses on the statistical programs listed below. They include financial information on domestic and international economic activity, although with major concentration on domestic activity. International economic transactions associated with the balance of payments and foreign direct investment are covered in the chapter on national economic accounts. These programs include:

1. Flow of funds accounts of the Federal Reserve Board,
2. Statistics of Income data of the Internal Revenue Service,
3. Industry financial data of the Federal Trade Commission, and
4. A broad grouping of banking, credit, securities, and government financial statistics provided by a number of federal agencies.

The recently completed Gross National Product Data Improvement Project included several recommendations for strengthening financial statistics. For a more extended discussion of this study of the gross national product (GNP) data base, see the chapter on the national economic accounts.

Uses and Users

Financial data reflect the quintessence of the money economy. They provide the measuring rod for valuing income, production and wealth, summarize investment incentives of the private sector, and depict the basic vehicle for practically all economic transactions of households, businesses and governments. This is exemplified by the Federal Reserve Board's flow of funds accounts as the financial extension and counterpart of the nonfinancial income and expenditures of the national economic accounts. The flow of funds are used in the development of projections of sources and uses of funds that are consistent with anticipated trends in the economic accounts, including alternative growth paths of the gross national product, as one analytic tool in the formulation of monetary policy.

Other major short-term uses of financial statistics include the Treasury Department's management of the Federal debt. This involves the continuous refinancing of maturing bills, notes and bonds and the financing of new borrowings at interest rates that clear the market and concomitantly are consistent with overall fiscal and monetary policies. Financial statistics also provide current information on government expenditures and revenues for analyzing and developing fiscal tax and spending policies. These address alternative mixes of the total amounts of fiscal stimulus or restraint, varying types of taxes and spending, and the timing of their implementation.

Major long-term uses of these data are associated with evaluating alternative proposals for tax and welfare reform. An important aspect of this work involves assessments of the effect of changes in tax laws on the income of demographic and business groups as well as their effect on governmental expenditures and revenues. Other long-term uses include projections of private and public sector capital requirements and the capacity to finance large-scale national programs such as those for pro-

tecting the environment and dealing with energy shortages.

Editor's Note

The final drafts of the chapters of *A Framework for Planning U.S. Federal Statistics* have been completed by the staff of the Office of Federal Statistical Policy and Standards. Preliminary draft chapters have been the subject of review and comment by the Federal statistical agencies as well as the public. These final chapters have incorporated many of the comments received as a result of this review process. The document is now being prepared for printing and publishing. Its availability will be announced in *Statistical Reporter*.

Published in this issue are the draft chapters on Construction Statistics, Financial Statistics, and the Industrial Directory. The following chapters have appeared in previous issues: International Statistics and Technical Assistance, and User Access to Federal Data Files (March 1978); Minimizing the Reporting Burden of Statistical Inquiries and A Program of Standards Development (March 1978); Agricultural Statistics, National Economic Accounts, and Science and Technology Statistics (November 1977); Price Statistics (revised) and Transportation Statistics (September 1977); Income Maintenance and Welfare Statistics (August 1977); Organization and Operations of U.S. Federal Statistical Agencies, Housing and Community Development Statistics, Longitudinal Surveys, and Economic and Social Statistics in the Coming Decade (July 1977); Health Statistics, Population Statistics, and Standards for Statistical Methodology (June 1977); Energy Statistics, Education Statistics, Income, Wealth, and Consumption; and Social Indicators and Social Accounts (May 1977); Labor Statistics, Production and Distribution Statistics, Statistics on the Environment and on Occupational Health and Safety, Civil Rights Data, Professional Staffing and Professional Staff Training, and Interagency Funding (April 1977); Price Statistics (March 1977); Criminal Justice Statistics (February 1977); Confidentiality of Statistical and Research Data (January 1977); User Access—Data Banks (December 1976); Federal-State Cooperative Systems of Data Collection (November 1976); Long-Term Economic Growth Models (October 1976). For a full outline of the overall Framework, see pages 207–209 of *Statistical Reporter* for May 1976.

For background statements on the planning process, see Joseph W. Duncan, "Developing Better Long-Range Plans for Federal Statistics" *Statistical Reporter*, October 1974; Robert W. Raynsford, "The Interagency Statistical Planning Effort, 1975," *Statistical Reporter*, September, 1975; and Paul O'Neil, "OMB's Role in Planning and Coordination of Federal Statistics," *Statistical Reporter*, May 1976.

Comments on these materials should be sent to Office of Federal Statistical Policy and Standards, U.S. Department of Commerce, Washington, D.C. 20230.

These data are important to a number of Federal agencies. The Council of Economic Advisers, Federal Reserve Board, Treasury Department, and Office of Management and Budget use this information for macroeconomic policymaking. The Departments of Commerce, Housing and Urban Development, and Health, Education, and Welfare, as well as the agencies noted above, also use these data for special sectoral analyses such as housing markets and for studies and policy formulations affecting the financial implications of the longer-run structural issues of tax and welfare reform, pollution abatement, etc. The data on household and business incomes are also used by the Department of Commerce in the preparation of the economic accounts.

Major congressional users include the Joint Economic Committee, Congressional Budget Office, House and Senate Budget Committees, House Ways and Means and Senate Finance Committees, House Committee on Banking, Finance, and Urban Affairs, and Senate Committee on Banking and Urban Affairs. Prominent users in the private sector include the banking and securities industries, university affiliated economic research groups, and industrial firms.

Flow of Funds Accounts

The flow of funds accounts (FFA), prepared by the Federal Reserve Board, give a comprehensive picture of the financial lending and borrowing transactions of the U.S. economy. These measures integrate the statistical series both on the sources and uses of funds in financial markets and the linkages between these financial activities and the nonfinancial income and expenditures in the national economic accounts (NEA).

The FFA provide the framework for developing projections of capital financing that are both realistic and consistent with projections of the gross national product. This type of analysis is one of several factors used by the Federal Reserve in establishing targets for monetary policy associated with overall goals for employment and inflation. It also is used by financial industries for projecting the probable trend of interest rates.[1]

[1] Stephen Taylor, "Uses of Flow-of-Funds Accounts in the Federal Reserve System," and discussion by Thomas R. Atkinson, *The Journal of Finance*, May 1963. Although written in the early 1960's, the actual uses as described in these papers appear to be essentially unchanged.

Sources of funds are generated by demand deposits and currency, time and savings accounts, life insurance and pension fund reserves, corporate stock, credit market instruments (e.g., government securities and trade credit, and several other items. Uses of funds are absorbed by the (a) financial sectors composed of commercial banks, private nonbank financial institutions, federally sponsored credit agencies and the monetary authorities, and (b) nonfinancial sectors comprising households, businesses, governments, and rest of the world.

The FFA are integrated with the saving and investment components of the NEA. This interface provides measures of the different types of credit and equity financing used for expenditures by households, businesses, governments and the rest of the world. Thus, for each of these nonfinancial sectors, estimates are prepared of the external sources of funds that are used to supplement internally generated income derived from current production to support outlays for goods, services, and investments, and changes in cash balances. (The same information is provided for each of the financial sectors.)[2]

The FFA are prepared from data provided by a number of sources. Much of the financial data on sources and uses of funds are from the Treasury Department, Census Bureau, commercial bank regulatory agencies, Federal Home Loan Bank Board, and private sources such as the National Credit Union Administration and Life Insurance Association of America. The nonfinancial data related to incomes and expenditures come directly from the NEA.

The FFA data are published quarterly in both seasonally adjusted and unadjusted forms. A condensed version of the tables also appears in the *Federal Reserve Bulletin.* The data are revised annually to reflect NEA revisions and other benchmark data that become available during the year.

Data Gaps.—As part of the Gross National Product Data Improvement Project, a limited examination was made of the content, quality, and timeliness of the underlying data used in preparing the flow of funds accounts. This led to the following recommendations for improving the FFA data base:

1. The Bureau of Economic Analysis should provide current quarterly seasonally unadjusted data for all components of the product side and as many components as feasible for the income side of the national economic accounts.
2. The Securities and Exchange Commission should explore the feasibility of tabulating the quarterly and annual reports filed by all registered large nonfinancial corporations to provide an integrated statement of income, balance sheets and sources of financing.
3. The Census Bureau should collect quarterly data on cash and security holdings of State and local governments.
4. The Bureau of Economic Analysis should provide quarterly measures of fixed capital outlays, stocks, and capital consumption charges by sector and by type of capital as part of the national economic accounts.
5. Basic research should be conducted on the measurement of land values with respect to use, ownership, encumbrances, and intangibles (e.g., mineral and timbering rights) related to natural resources and leases. The National Bureau of Economic Research is urged to devote one or more of its annual meetings of the U.S. Conference on Research in Income and Wealth in the near future to this subject.
6. The Federal Reserve Board, Federal Deposit Insurance Corporation, and Comptroller of the Currency should improve bank trust department reporting by collecting more timely data either quarterly or semiannually, speeding up the tabulation of the annual data to 6 months after the reference year, and refining the classification of financial components, e.g., separate tabulations of domestic corporate bonds, foreign corporate bonds, and other major market instruments.
7. The Office of Federal Statistical Policy and Standards should organize and guide an interagency task force to exploit the new census of nonprofit organizations for preparing measures of expenditures and

[2] See Board of Governors of the Federal Reserve System, *Introduction to Flow of Funds,* 1975, for a more complete discussion of the conceptual and statistical aspects of the flow of funds accounts.

financial transactions to be used in the national economic and flow of funds accounts.

8. The Office of Federal Statistical Policy and Standards should form an interagency task force to monitor and appraise the usefulness of the ongoing Internal Revenue Service project on developing personal wealth estimates by size class. The task force should consider how frequently the project should be repeated and how it could be extended to cover the expenditures of wealthy individuals.
9. The Office of Federal Statistical Policy and Standards should establish an interagency task force to reconcile operational definitions on international transactions used by the Bureau of Economic Analysis, Treasury Department, and Federal Reserve System.
10. The Bureau of Economic Analysis should prepare a time series on the U.S. international investment position from 1948 forward.

These recommendations deal with a wide range of areas that should be followed up in the years ahead. They are, nevertheless, a highly selective list of improvements because of the summary nature of the review itself. In fact, there never has been a comprehensive study of the reliability of underlying data used in preparing the FFA. Past studies of the monetary system such as those of the Commission on Money and Credit (1961) and President's Commission on Financial Structure and Regulation (1972) have emphasized the organization of the Federal Reserve System, use of different monetary policy instruments, regulation of financial institutions, etc., rather than the adequacy and development of the analytic and statistical tools for monetary analysis and policymaking.

The seminal conceptual and statistical work on the FFA by Morris Copeland of the National Bureau of Economic Research was completed in 1952.[3] The Federal Reserve Board (FRB) then assumed the maintenance and further development of the FFA as a continuing program. Over the first quarter century of the FRB work, the annual estimates were extended to the quarterly series, seasonally adjusted figures were introduced, the FFA were made consistent with the NEA, and balance sheet data on assets and liabilities (stocks) were added to the sources and uses (flows) information.

This progress has been achieved on an ad hoc basis. The introduction of new statistical measures and conceptual advances reflects the demand for analytic uses of the construct balanced by the quality of the data available for preparing the estimates. A considerable body of literature has also developed over the years on problems and needs for the accounts.[4] With the FFA established as one of the major tools for interpreting and forecasting money supply and interest rate movements in the context of overall economic activity, employment and prices, a thorough evaluation of the underlying data used in their preparation and the need for further conceptual development of the accounts is now appropriate.

Recommendation: *A commission composed of experts on the flow of funds accounts should be established to conduct a comprehensive study of the need for improving the underlying data and further developing the conceptual aspects of the accounts. The commission should be an independent study group that consults with the Federal Reserve Board, governmental statistical agencies, and private and public users of the flow of funds. (A comprehensive study of the flow of funds data base was recommended in the Gross National Product Data Improvement Project Report.)*

As part of the further conceptual development of the accounts, one area that should be given special attention is the need and feasibility of providing more gross data on transactions, such as developing more detail on the sources and uses of funds to further elaborate the "from-whom, to-whom" transactions which show lending and borrowing between and within sectors. The commission could use the limited recommendations for the flow of funds in the GNP Data Improvement Project as one reference for delineating the issues and scope of its study.

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[3] Morris A. Copeland, *A Study of Moneyflows in the United States* (National Bureau of Economic Research, 1952).

[4] For an extensive catalog of these references as of the early 1970's, see Jacob Cohen, "Copeland's Money Flows after Twenty-Five Years: A Survey," *Journal of Economic Literature,* March 1972, and A. D. Bain, "Surveys in Applied Economics: Flow of Funds Analysis," *The Economic Journal,* December 1973.

Statistics of Income

The annual Statistics of Income (SOI) data published by the Internal Revenue Service are based on a sample of Federal income tax returns for individuals, corporations, and unincorporated businesses. The data include gross income, deductions and taxible income for individuals and businesses, as well as balance sheet information on assets and liabilities of businesses, including tabulations by size of business and income size classes of individuals. Supplementary reports typically are done every 2 or 4 years—estate taxes (4 years), fiduciaries (4 years), individuals sales of capital assets (4 years), individual small areas (2 years), domestic international sales corporations (annually), corporate foreign tax credits (2 years), and U.S. multinational corporations (2 years).

Preliminary data for the annual publications are available about 1½ years after the reference year, and final data 1 year later. The domestic supplementary data are available typically 2–2½ years and the international information 4 years after the reference year.

The SOI data have both program and statistical uses. They are important for assessing the private income and tax revenue impacts of proposed and actual changes in tax and welfare laws, including tax and welfare reform. They are also used for analyzing programs and legislation associated with assisting small business. Statistically, they are direct components of the data base of the national economic and flow of funds accounts on income and individuals and businesses, and indirectly as well. Thus, they are used as the sampling frame for the Quarterly Financial Report and as the benchmark for the quarterly series on Working Capital of Nonfinancial Corporations of the Federal Trade Commission (discussed below), and for the reconciliation of company and establishment data in the Census Bureau's enterprise statistics, all of which are used in preparing the economic and financial accounts as well as for other purposes.

Data Gaps.—Because of the importance of the SOI in preparing the national economic accounts, an extensive review of these data was conducted as part of the GNP Data Improvement Project. This led to the following recommendations for strengthening the SOI program.

1. Annual data on the income and expenses of retirement, welfare, health and thrift savings plans collected under the Employment Retirement Income Security Act should be tabulated as national industry aggregates by mid-May for the plan year covering the previous July 1 to June 30 period.
2. The method of valuing inventories should be collected on business tax schedules and tabulated annually.
3. For corporations and partnerships associated with farm enterprises, business expenses associated with business farm receipts should be specified and tabulated as is done on the tax returns for sole proprietorships (Schedule F).
4. Data on corporate tax returns that reconciles taxable profits and balance sheets with stockholder reports (Schedule M) should be tabulated.

Beyond the needs of the national economic accounts, there are at least two general areas about which more systematic information is needed for users of the SOI. One relates to the needs of the small business program for economic information. The Small Business Administration has made a start in this direction by undertaking a broad review of its program needs for economic information. The second area is an evaluation of the data uses and adequacy of the supplementary tabulations.

Recommendations: The ongoing review by the Small Business Administration of its data base needs has identified several types of beneficial information which could be provided as supplementary data from the Statistics of Income program. They include tabulations of small business income tax returns for those companies receiving SBA loans, cross-tabulations of corporate dividend payments by size of company and income size of recipient, and more detailed size class and industry classification categories. These would provide the basis for better evaluating the effects of the SBA loan programs, developing more explicit assessments of proposed changes in tax laws for their impact on investors in small business, and more accurately identifying the universe of small business firms.

After an assessment of the feasibility and costs of providing these data is made, they should be ranked in a system of priorities for obtaining additional funding

in future years. Because of the close link between the small business and minority business programs, this assessment should be coordinated with the Office of Minority Business Enterprise in the Department of Commerce.

The Internal Revenue Service should conduct a survey of users of the supplemental reports to Statistics of Income to assess the need for augmenting and/or modifying their content and frequency.

Federal Trade Commission Financial Reports

The Federal Trade Commission (FTC) provides statistical reports on industry income and balance sheet information, diversification, mergers and concentration. Four periodic reports are summarized here: Quarterly Financial Report, Working Capital of Nonfinancial Corporations (also quarterly), Line of Business (annual), and Corporate Patterns (quinquennial).

QUARTERLY FINANCIAL REPORT

The Quarterly Financial Report (QFR) provides financial data on manufacturing, mining, retail and wholesale trade corporations. These data on income, expenses, dividends, retained earnings, assets, liabilities and equity represent economy-wide industry totals. They are shown in selected subindustry detail and by asset size for manufacturing, and as industry aggregates for mining and trade, both in dollars and as percent distributions. The information is collected from a probability sample of surveyed firms and raised to universe totals. The QFR is a mandatory report.

The QFR is used in developing estimates of the national economic accounts, for investor analyses of the profitability and financial health of American industry, and in assessing the position and prospects of small business for administering the small business assistance program.

Two program improvements for the QFR were recommended in the GNP Data Improvement Project.

1. The Federal Trade Commission should carry out a survey of annual profits (audited by public accounting firms) based on the domestic operations of corporations in its sample of Quarterly Financial Reports. The tabulations of survey results should be completed in time for use in the first July GNP estimates.
2. Explicit figures on employer contributions to private pension, health, and welfare benefit plans on an accrual accounting basis should be provided in the Quarterly Financial Report.

In order to reduce reporting burden on American businesses the QFR sample was reduced in 1977 by eliminating smaller firms. Indirect estimates for the smaller firms are now provided by extrapolating the statistical relationships between small and large companies over the 1974–77 period. This in turn has decreased the number of size class categories for smaller sized firms, information which is of interest for administering the small business program.

Recommendation: *The need for obtaining more detailed asset size classifications in the Quarterly Financial Report should be reviewed after 2 or 3 years experience is gained with the reduced sample of surveyed firms. The review should include the needs of the Small Business Administration for these data, alternative methods for obtaining such information, and the reliability of the indirect estimating technique for small firms as a whole.*

WORKING CAPITAL OF NONFINANCIAL CORPORATIONS

This quarterly series provides information on current assets (e.g. cash, receivables, U.S. government securities, inventories) and current liabilities (e.g. short-term bank loans, payables, Federal income taxes accrued, current installments on long-term bank loans) for nonfarm industries. The data are obtained from the Quarterly Financial Report for manufacturing, mining and trade, surveys of electric and gas utilities, transportation company reports to the Civil Aeronautics Board and Interstate Commerce Commission, and for other industries as indirect estimates. The figures are benchmarked from time to time to Statistics of Income data.

The working capital series was transferred from the Securities and Exchange Commission (SEC) to the Federal Trade Commission in FY 1978. The data are published in the *Federal Reserve Bulletin* (the additional early release by SEC has been discontinued by FTC pending its more thorough review of the program). Other program changes initiated by FTC were to reduce the reporting burden by replacing sample surveys of the construction and service industries

with estimates based on extrapolating relationships between these and other industries over the 1974–77 period, updating the benchmarking to the 1974 Statistics of Income, and improving the data processing.

These data are used in preparing the national economic and flow of funds accounts and for investment analyses. The following recommendation for strengthening the series was made in the GNP Data Improvement Project.

A review of the tabulation schedule of the series on Working Capital of Nonfinancial Corporations should be made in a few years for the possibility of speeding up the availability of these data in time for use in the 75-day GNP estimates.

The recent transferral of the working capital series to the Federal Trade Commission has led to an overall review of the program as well as program changes. Further assessment of the program will follow as more experience is gained with it.

Recommendations: *The need and alternative methods for an earlier release of the working capital data should be examined including recommendations for the most appropriate dissemination vehicle. The indirect estimating technique for the nonsurveyed industries in the working capital series should be reviewed in a few years to assess its reliability, including recommendations for continuing or modifying the existing methodology.*

LINE OF BUSINESS

The new line of business program is designed to provide annual data on profits, loss, and assets for relatively homogeneous classes of products for approximately 500 of the largest diversified manufacturing companies. The definition of lines of business provides for flexibility on the part of the respondent. They are built up from basic components which can be establishments, product lines, profit centers, or other organizational units, whichever strikes the best balance between accuracy of reporting and compliance burden. Summary reconciliations of these data will be made with the Quarterly Financial Report information.

Data collection for the line of business began for the year 1973. Due to legal challenges to the program which are still pending in court, some companies have not been reporting data to the Federal Trade Commission, and no reports of the data collected to date have been published.

Information from the line of business program will be presented as statistical industry aggregates. Individual company data will not be published. To prevent possible disclosure, at a minimum, data for four companies will be aggregated in a given industrial category.

The program has two major uses. One is to assist the Federal Trade Commission in identifying areas of investigation for its antitrust and consumer protection law enforcement functions which are industry-wide in scope and best serve the public interest. The other is to obtain a clear picture of financial developments in specific industries for analyses of market structure, industrial performance and market entry by companies, investment analysts, FTC economists, and outside scholars.

CORPORATE PATTERNS

The new survey of corporate patterns is aimed at providing periodic information for approximately 1,000 of the largest manufacturing companies on value of shipments by product class, nonmanufacturing sales of the diversified manufacturing companies, company sales and assets, and characteristics of joint ventures and minority-interest companies in which the parent companies have ownership interests. Data were collected initially for 1972 and planned to be repeated on a 5-year cycle to coincide with the quinquennial economic census years. Because of legal challenges to the program which are pending in court, the planned data collection is behind schedule. The last such survey of corporate patterns was conducted for 1950.

Examples of the tabulations expected in the report include the following: (1) share of product class output accounted for by leading firms; (2) concentration ratios of the number and size of firms in a product class; (3) mobility and changing compositon of leading firms by characteristics such as aggregate size and extent of diversification and vertical integration; (4) identification of industries according to level or merger activity; (5) relationship to merger activity of factors such as industry size and growth; (6) relative use of mergers and internal expansion in entering new product lines; and (7) advertising to value of shipments ratios by product class.

Publication of data for individual companies will not be made available for at least 5 years after the data year. This lag is deemed adequate to prevent disclosure of proprietary information that could benefit rival companies.

The principal use of the corporate patterns data will be to assist the Federal Trade Commission in its enforcement efforts, economic studies and policy planning activities. Due to the lack of consistent and comprehensive published data, there has been no systematic empirical analysis of the significance and impact on competition of the merger movements and increased diversification of large corporations over the last three decades. Such information is considered essential for a basic understanding of competitive conditions and the formulation of sound and effective antitrust policy.

Banking and Credit

A number of Federal agencies provide statistics on banking and credit. The more prominent ones are summarized below.

The Federal Reserve Board publishes weekly and monthly banking statistics in the monthly *Federal Reserve Bulletin* and as special releases. These include data on the central banking system, money stock, interest rates, commercial bank balance sheets, consumer and mortgage credit, governmental and international financial transactions.

The Federal Deposit Insurance Corporation (FDIC) publishes data on commercial banking in the form of "all bank" statistics from tabulations by the Comptroller of the Currency, Federal Reserve, and FDIC call reports—detailed reports of assets and liabilities tabulated four times each year for the banks under the agency's supervision—and from similar reports semiannually covering the small number of noninsured banks. Annual data are published also on the earnings, expenses, and profits of all insured commercial and mutual savings banks. In addition, the FDIC collects data on mortgages made on new and existing single family homes by commercial and mutual savings banks for incorporation with similar data from savings and loans institutions into the Federal Home Loan Bank Board monthly series on interest rates and terms of nonfarm conventional first morgages, and for use in Department of Housing and Urban Development data on gross mortgage flows.

The Federal Home Loan Bank Board provides data on the operations of the Federal Home Loan Banks, savings and loan associations, and general information on the mortgage market.

The Department of Housing and Urban Development provides monthly data on originations of mortgage and construction loans, purchases and sales of loans for residential and nonresidential properties, commitments for mortgage loans, and quarterly information on gross flows of mortgage loans.

The Securities and Exchange Commission provides current and/or annual data on the volume and dollar value of activity in the securities markets, institutional purchases and sales of common stocks, ownership of common stocks, condition of security brokers and dealers, and noninsured private pension funds.

The Department of Agriculture provides current and/or annual data on agricultural credit, including agricultural loans by financial and lending institutions, farm mortgage debt and interest rates.

The Department of the Treasury provides monthly data on the national debt, Federal securities, and international Government transactions.

The Bureau of the Census provides annual data on debt transactions and cash and security holdings of State and local governments. It also provides quinquennial information on farm finances as part of the census of agriculture

The Bureau of Economic Analyses provides quarterly information on international financial transactions as part of the balance of payments accounts (See the chapter on national economic accounts).

DATA GAPS AND FURTHER DEVELOPMENT

Data weaknesses of banking and credit statistics may be classified in four broad categories: money stock, consumer credit, mortgage and construction loan interest rates, and small business data needs.

Money Stock.–The money supply aggregates composed alternatively of various categories of cash and deposits and referred to as M_1 through M_5 are a basic source of information used by the Federal Reserve Board in setting monetary policy.

In its 1976 report to the Federal Reserve Board, the Advisory Committee on Monetary Statistics recommended a number of improvements for strengthening the analytic usefulness and statistical reliability fo the money stock figures.[5] These include money stock definitions, nonmember bank deposits, consolidation of financial institution accounts, foreign deposits, seasonal adjustment, short-run transitory variations, and negotiable and payment order of withdrawal accounts.

A program to improve the measures of deposits of nonmember banks of the Federal Reserve System has begun with an experimental survey by the Federal Deposit Insurance Corporation to collect weekly data on deposits of nonmember banks to supplement the existing quarterly call report data. A decision will be make in 1979 on whether to make this survey permanent. Reliable measurement of nonmember banks is important because of their effect on monetary policy. They account for approximately 25% of all commercial bank deposits, and since this proportion is growing, it will be still more important in the future to have an accurate assessment of their role in economy. The FRB also established a committee of outside experts in 1978 to review the seasonal adjustment techniques presently used and to recommend the most appropriate methods for adjusting the monetary aggregates and other financial data.

Recommendations:

1. *The Federal Reserve Board should conduct a retrospective review of the recommendations of the Advisory Committee on Monetary Statistics for improving the monetary aggregates to take stock of which recommendations have or are being implemented, and to develop a systematic plan for addressing the remaining recommendation.*

2. *The experimental program by the Federal Deposit Insurance Corporation to collect weekly data on deposits of nonmember banks of the Federal Reserve System should be made permanent.*

Consumer Credit.—Consumer purchasing power is composed of personal income and consumer credit. Recommendations for strengthening the current estimates of total and disposable personal income were made in the *GNP Data Improvement Project Report.* These include improvements for the components of wages and salaries, labor income from wage and salary supplements, fringe benefits, income from self-employment and rentals, and deductions of Federal income and social security taxes.

The most prominent weaknesses in consumer credit information are the data on loans by credit unions and the use of mortgage borrowing on exisiting homes for consumer purchases.

Current data on loans by credit unions are derived from monthly surveys of the National Credit Union Administration (Federal and State chartered unions) and from annual surveys of the Credit Union National Association (State chartered unions). These in turn are developed into national totals by type of loan (automotive, other consumer) by the Federal Reserve Board. The basic problems with the underlying data are the lack of current monthly information on new loans and repayments by State credit unions (monthly data are available only for loans outstanding), and weaknesses in the sample of Federal credit unions from which data on new loans and repayments are obtained.

The difficulty with the information on mortgage loans on existing housing is the lack of direct information on the use of these borrowed funds—e.g. refinancing existing mortgages, downpayment for second home, home improvements, consumer durables, medical and educational expenses. A recent study suggests that such borrowing has bolstered consumer expenditures in the mid-1970's as the inflation in real estate values has been used by households to finance additional consumer outlays by increasing household debt.[6] However, it is likely that the use of such funds for consumer expenditures varies with economic and financial conditions. For example, during periods of financial stringency, it is possible that a larger proportion of mortgages on existing homes would be used to build up liquid asset balances. Thus, a tightening of the availability of mortgage funds could have an intensified im-

[5] Report of the Advisory Committee on Monetary Statistics, *Improving the Monetary Aggregates,* Board of Governors of the Federal Reserve System, June 1976.

[6] David F. Seiders, "Mortgage Borrowing Against Equity in Existing Homes: Measurement, Generation, and Implications for Economic Activity," Paper presented at the Eight Annual Conference of the Society of Government Economists, March 27, 1978.

pact on consumer outlays. The absence of information on the use of mortgage loans on existing housing is a lacuna for monetary policymaking.

Recommendations:

1. *The National Credit Union Administration and the Federal Reserve Board should review the needs, feasibility and costs of obtaining more reliable information on monthly loans and loan repayments of Federal and State chartered credit unions. This study should address the lack of direct monthly data for State credit unions and the adequacy of the sample of Federal credit unions used in obtaining these data.*
2. *The Interagency Committee on Financial Statistics should explore alternative methods for obtaining direct information on the use of mortgage loans on existing housing.*

Mortgage and Construction Loan Interest Rates.—Current information on actual interest rates charged on Federal Housing Administration and Veterans Administration home mortgages is not available. These data on interest rates at the time of commitment and closing for new and existing homes were collected from June 1972 to September 1977, initially on the recommendation of the Interagency Committee on Interest and Dividends which functioned during the price and wage control period of the early 1970's. The series was discontinued in 1977 on the basis that other information on mortgage interest rates was adequate for economic analysis.

Recommendation: *The Interagency Committee on Financial Statistics should study the uses and differential movements of the discontinued series on Federal Housing Administration and Veterans Administration interest rates on home mortgages to assess the need for reinstituting the collection of these data.*

Current information on interest rates for mortgages for apartments and commercial buildings is available from diverse sources—e.g. monthly survey of 15 life insurance companies, monthly figures from the Advance Mortgage corporation (subsidiary of Citicorp), and weekly data for apartments only from a survey of 25 savings and loan associations conducted by the Federal Home Loan Mortgage Corporation. There is no comprehensive survey of mortgage interest rates charged on these buildings.

Recommendation: *The Interagency Committee on Financial Statistical should review the need, feasibility and costs for developing an "official" series on mortgage interest rates for apartment and commercial buildings.*

Construction loans are an early source of mortgage credit. For commercial banks, current data on the volume and interest rates of construction loans are available. For savings and loan associations, information on construction loans is limited to the volume of closings.

Recommendation: *Because of the importance of construction loans by savings and loan associations, the Federal Home Loan Bank Board should collect current information on interest rates for these loans.*

Small Business Data Needs.–In the previous sections on Statistics of Income and the Quarterly Financial Report, note was made of the use of financial statistics for administering the small business program. However, at the present time there is no overall framework for assessing data needs for fostering small business, including those owned by minorities. The current review by the Small Business Administration of its data needs is an important step in remedying this situation.

Recommendation: *When the current study by the Small Business Administration of its data base needs is completed, these should be included in the overall planning of economic statistics programs.*

CONSTRUCTION STATISTICS

Construction is one of the Nation's largest and most volatile industries. Construction statistics are used for (1) short-term analyses and projections of the impact of construction activity on the economy for fiscal and monetary policymaking, (2) long-term analyses of living conditions

and economic growth for developing policies associated with obtaining adequate housing and capital investment, and (3) analyses of construction markets by contractors, labor unions and suppliers of construction materials.

Construction statistics are closely related to other areas covered in the Framework—housing, mortgage financing, and overall economic activity. These are discussed in the chapters on housing and community development, financial statistics, and economic accounts. Hence this chapter is brief, covering only those topics that do not fit conveniently into these related chapters. In order to make a full assessment of the needs for and recommendations regarding construction statistics, it is essential to review these related chapters.

Statistical Programs

Statistics on construction activity are primarily collected and distributed by the Census Bureau. The Census construction statistics are collected monthly, quarterly, annually, and quinquennially.

Monthly data and annual summaries and benchmarks are published in a series of construction reports for (1) value of new construction put in place in current and constant dollars for all types of private and public construction, (2) housing starts and completions, and new one-family homes sold and for-sale, and (3) housing authorized by building permits and public contracts, and demolitions at the local area level, and (4) mobile home placements conducted for the Department of Housing and Urban Development.

A quarterly sales price index for new one-family houses sold is developed. Annual information is provided on the value of residential repairs, additions, alterations and replacements (data are collected quarterly but tabulated annually).

The quinquennial census of construction industries covers receipts, expenses, capital outlays, etc. of construction contractors, operative builders, land subdividers and developers. These data are published by industry and State.

The above data are based on survey information on building permits, contract awards, housing and other construction starts, housing sales and completions, construction expenditures, and operations of the construction industry. For the measures of construction put in place, these data are supplemented with statistical estimating procedures. The single-family housing price index is based on a statistical regression analysis that adjusts for the changing structural characteristics of new housing. Construction cost indexes used to deflate other types of construction activity to constant dollars are obtained from other Federal agencies and private industry.

The Bureau of Labor Statistics (BLS) conducts periodic studies to determine the labor, materials and overhead costs and construction time required for various types of construction. These studies have been conducted roughly in 5 to 10-year cycles for single-family housing, private multifamily housing, public housing, college housing, nursing homes, hospitals, schools, highways, sewers, civil works, Federal office buildings and commercial office buildings. The BLS also collects monthly data on payrolls and employment in the construction industry and wholesale price indexes of construction materials.

The Department of Labor completed the initial phase of a new system for developing short, medium and long-term projections of employment on construction projects in 1978, and the full implementation of the program is planned for 1980. This Construction Manpower Demand System provides forecasts of the demand for approximately 30 construction craft occupations plus on-site technical and professional personnel for about 35 types of construction in local areas, State, Federal regions, and the Nation. The forecasts are developed monthly for the first year of the projections, quarterly for the second year, and annually for the next 3 years. Longer-term projections of 10 and more years will be made for some energy-related construction sectors.

Uses and Users

Data on construction activity are used by Federal, State and local government agencies and private organizations for economic analysis, projections and policymaking. The Council of Economic Advisers; the Federal Reserve Board; the Departments of the Treasury, Housing and Urban Development, Labor and Commerce; the Federal Home Loan Bank Board, and the Federal and Government National Mortgage Associations use the data in determining fiscal, monetary, employment, and regional economic

development policies for the financing of construction to stabilize the economy, to assess the needs for new private and public capital investments, and help in achieving the goal of providing adequate housing (see the chapter on housing and community development for housing goals). The House Banking, Finance and Urban Affairs, the Senate Banking and Urban Affairs Committees, the Joint Economic Committee, and the Congressional Budget Office use these data in evaluating the need for new legislation in similar areas.

The Department of Labor uses the construction data and projections for providing a better match between job vacancies and workers in its employment service and training programs. Within the Department of Commerce, the Bureau of Economic Analysis uses the construction put in place figures in developing estimates of the gross national product and the construction labor and materials studies in preparing input-output tables (see national economic accounts chapter). Also, the Commerce Department's Industry and Trade Administration prepares *Construction Review,* a monthly publication which summarizes a wide range of construction statistics.

In the private sector, construction statistics are used by manufacturers and distributors of construction products for company planning and marketing. Trade associations, labor unions, and financial organizations use these data to analyze market trends, negotiate wage agreements, advise on investments, and recommend legislation.

Advisory Committees

There are no continuing advisory groups charged primarily with reviewing the construction statistics program. The advisory committees to the Census Bureau, e.g., the American Statistical Association and the American Economic Association advisory committees and the Advisory Committee on State and Local Area Statistics, occasionally offer suggestions to improve the construction statistics program. Special studies have been made for improving construction statistics. For example, the Cabinet Committee on Construction prepared such a report in 1970 on a wide range of topics—compensation, industrial relations, prices, finance, employment, existing structures, output and industry statistics. More recently, the Gross National Product Data Improvement Project recommended several improvements for measuring construction activity in current and constant dollars (see the chapter on national economic accounts).

Major Data Gaps and Recommendations

The most prominent data problems with construction statistics are the inadequacy of construction cost indexes, lack of measures of nonresidential maintenance and repair construction, weaknesses in the measures of single-family construction put in place and of residential repairs and alterations, and lack of information on dealer inventories of mobile homes and of capacity in the construction industry.

Construction Costs Indexes.–It has long been recognized that the construction cost indexes used to deflate the bulk of construction expenditures are not representative of actual material, labor and overhead costs. Based on previous analyses, these indexes tend to overstate the increase in construction costs due to inflation and consequently lead to an understatement of the estimated volume of construction in constant dollars.

This problem exists for approximately 70% of all new construction—multifamily housing, industrial, commercial, educational and other nonresidential buildings, public utilities, and civil works. An essential weakness of these indexes is that they are based on pricing a hypothetical structures of certain physical characteristics which were specified at some time in the past rather than of actual structures currently under construction. They also are inadequately adjusted for productivity changes in the construction industry.

These indexes typically are provided by private organizations. Unfortunately, little information is made available on the methodology for preparing the indexes. The Census Bureau presently is developing its own construction cost index for multifamily housing. It is planned for use around 1980. This will be consistent with the indexes for single-family housing (Census Bureau) and highway construction (Federal Highway Administration) which are satisfactory.

The Census Bureau and the Bureau of Labor Statistics should engage in a joint research and development project to provide more reliable construc-

tion cost indexes for nonresidential construction. These should be developed initially for nonresidential buildings, and subsequently for electric power plants, sewer and water facilities, and other nonbuilding structures.

In addition to the conceptual aspects of the research, an examination should be made of the appropriate vehicles to obtain the necessary statistical information. For example, the BLS studies on labor and materials requirements for new construction and the Census data on characteristics of nonresidential buildings are primary sources of such information. These data sources should be reviewed for necessary improvements regarding the representativeness of the sampled projects, adequacy of the coverage of different types of construction, and frequency of the surveys. The BLS and Census data collection programs should also be integrated to avoid duplication.

Nonresidential Maintenance and Repair Construction.—Substantial sums are spent on the maintenance and repair of nonresidential structures—roughly estimated at over $20 billion annually. In addition, these outlays are being bolstered by modifications to existing structures to conserve energy. There are no directly collected data on these expenditures.

Estimates of expenditures for nonresidential maintenance and repair construction should be collected in the quinquennial economic censuses. These data would be provided in the census of construction industries for the work done by construction contractors, and in the other economic censuses for work done under contract and by force account employees.

Single Family Residential Construction.—Estimates of monthly construction put in place for single-family housing are developed indirectly by multiplying the number of housing units under construction from data on housing starts by unit construction costs from building permit data. The housing start data are adjusted for the estimated proportion of the building constructed each month and the unit cost estimates are adjusted for undervaluation in the building permit data and for architectural and engineering expenses. The adjustment factors for the building permit data and architectural and engineering work are based on studies conducted in 1956, which are now considerably out of date. Adjustment factors for the proportion of housing starts constructed each month are based on 1970–72 patterns; prior to 1978 they also reflected 1956 experience.

The Census Bureau should conduct a monthly survey that provides direct measures of the value put in place of single-family construction, analogous to the ongoing monthly survey for measuring multifamily residential construction. Alternatively, the Census Bureau should update the adjustment factors used for the unit costs and construction time every 5 years. In developing these factors, consideration should be given to using the BLS studies on labor and materials requirements for new construction and the Census surveys of housing sales and completions.

Residential Repairs and Alterations.—The Census Bureau's survey of expenditures for residential repairs, additions, alterations and replacements has relatively high sampling errors. In additon, due to the lack of quarterly tabulations of these data (collected quarterly but tabulated annually), estimates of the outlays for additions, alterations and replacements are extrapolated from annual levels for the quarterly gross national product estimates of fixed investment.

The Census Bureau should increase the sample of the survey of residential repairs, additions, alterations and replacements to significantly reduce the sampling error, and tabulate these data quarterly in time for use in preparing the gross national product estimate released 75 days after the quarter. Consideration also should be given to merging this survey with the Bureau of Labor Statistics' Continuing Consumer Expenditure Survey.

Dealer Inventories of Mobile Homes.—A major consideration in short-term demand forecasts is the status of inventories. Thus, if inventories are low relative to sales, future output tends to be strengthened; concomitantly, if inventories are relatively high, this tends to depress future output.

Unsold new homes are one form of inventory, and for conventionally-built single-family houses, monthly data on new homes for sale are available. Comparable information of mobile home dealer stocks of new mobile homes is not provided. Consequently, current market information affecting future trends for approximately one-fifth of new housing units is not available.

The Census Bureau should add monthly informa-

tion on dealer stocks of mobile homes to its ongoing survey of mobile home placements.

AREAS FOR FURTHER RESEARCH

Capacity in the Construction Industry.—There presently are not statistics on capacity and capacity utilization in the construction industry. Such information would be useful for analyses of potential output, inflationary pressures, and capital investment requirements for the construction industry.

Because of difficult methodological problems associated with developing a statistical series on capacity and capacity utilization in the construction industry, an interagency task force should study pragmatic means for developing such measures. The study should evaluate the feasibility of developing such measures.

Inventory of Nonresidential Structures.—An inventory of the characteristics and location of existing housing is developed decennially, and in less detail annually. There is no comparable information, even on a one-time basis, for the stock of nonresidential structures.

The provision of an inventory of nonresidential structures by type of structure, ownership, age, utilization, geographic area and other characteristics potentially could be used to develop projections of the demand for additional and replacement structures in local areas, for estimates of tangible national wealth, and possibly as a universe from which to conduct sample surveys of expenditures for repairs, replacements, additions and alterations to existing nonresidential structures.

Because of the considerable costs associated with developing an inventory of existing nonresidential structures, an interagency task force should examine the likely uses to which such information would in fact be put. The results of this study should then be evaluated to determine the merits for initially developing such an inventory and subsequently for periodically keeping it up to date.

INDUSTRIAL DIRECTORY

Purpose

One of the major problems in maintaining high quality statistical output in the U.S. Federal Statistical System is ensuring that samples used for statistical purposes are as efficient and as consistent as possible. This is important for two reasons: (1) sampling from a known universe of firms or establishments permits the collection of statistics with a known and high level of accuracy imposing a minimum of reporting burden on the public, and (2) statistics collected by different agencies purporting to represent the same industry, activity, size class, or geographical region can be made compatible thereby facilitating meaningful integrated analysis.

At present, many agencies conducting statistical surveys do not have a good list of the universe of entities which they are attempting to measure. These agencies must develop their lists of respondents from secondary sources, or from preliminary direct surveys, causing a significant respondent burden and expenditure of agency funds resulting, in many cases, in respondent lists of questionable quality and unknown relationships to similar lists developed by other agencies. In lieu of a good list from which to draw samples, most agencies now conduct inefficient surveys involving more respondents than necessary for the required accuracy of information. In some cases, the agencies are unable to conduct surveys at all, and therefore do not collect the data needed for policy decisions and for program planning and evaluation.

The Standard Statistical Establishment List (SSEL), which is the Census Bureau's name for the Industrial Directory, is an up-to-date list of all business establishments in the United States. Its purpose is to provide sufficient identifying information about a universal sampling frame to be used for all Federal statistical programs involving establishments as defined in the Standard Industrial Classification (SIC). It also includes similar company identification and Enterprise SIC codes of all multi-establishment companies. It is now being used internally by Census to draw samples for their programs, As an additional product of developing the SSEL, an annual economic data publication program provides aggregate benchmark information.

The Industrial Directory program described here is the extension of the SSEL to other agencies for similar sampling purposes. The benefits of this extension include more consistent statistics, efficiency, and some reduction in respondent burden. The Industrial Directory is simply an effort to have the Federal statistical community operate as though it were a single agency for purposes of maintaining a mailing list and sampling frame of the Nation's business establishments.

Current Situation

The Bureau of the Census has been developing the processing capability and contents of an Industrial Directory for the last 7 years. It now includes all establishments with employees except religious and government organizations. The extension to these areas and to business with no employees is now under consideration. The record format and contents of the Directory are now in place and are being used for Census programs. Efforts are being made to develop interagency access capability probably using online computer terminals.

A technical group was set up by the Office of Management and Budget in 1972 to promote the interchange of ideas among user agencies. This group has developed a statement and proposed legislation to provide access into the Directory to other Federal statistical agencies.

Next Steps in the Development of an Operating Industrial Directory

Legislation will be needed to authorize the Census Bureau to make this information and sampling frames available to other statistical agencies. At present, Title 13 of the United States Code does not permit the Census Bureau to make such disclosures. It is recognized, however, that it is important to maintain confidentiality of the company and establishment names, addresses and size and activity codes included in the SSEL. For this reason, the conditions in the proposed legislative initiative for releasing SSEL information will be strictly limited to statistical purposes, and will prohibit further release of the information in identifiable form by user agencies.

The effort to provide the legal basis for the Directory's use should be made regardless of plans to reorganize the statistical activities of the Federal Government. *It is very important that the legislation authorizing access to the Directory be done now, because attempting to reconcile various systems at the same time a reorganization is being implemented will certainly make it very difficult to keep several continuing statistical programs running smoothly.*

The procedures for developing samples, the cost to agencies and clarification of which specific agencies can participate, etc., have not yet been developed since they may be effectual by the legislation. The Census Bureau has written a set of working papers which outline the format, content, updating procedures and sources, scope, frequency of updating, etc. in detail.

One sampling possibility for sample selection is to preselect several nonduplicative samples. Any particular agency which needs a sample without any special sampling characteristics would designate the particular standard error which is acceptable for their purposes. The Bureau of the Census could then provide the agency one or more segments of the preselected samples necessary to achieve those desired results. This arrangement would minimize the burden on the individual respondent by assigning establishments to one and only one of the preselected samples (although they might be also selected in a specialized sampling procedure). In some cases it might make sense to utilize a particular segment more thoroughly for 1 or 2 years and then reduce the likelihood of selecting those establishments for the next 2 or 3 years. This procedure would allow for data collected in one survey to be available for summarization by characteristics collected on another survey from the identical sample. Every effort should be made to minimize the total respondent burden, even though that may mean a larger than average burden for selected establishments in one year, with a lower level in succeeding years.

Other Uses of the Industrial Directory

The Commission on Federal Paperwork has suggested not only identification information, but also individual company quantitative data be made available for exchange between statistical agencies that can maintain confidentiality for nonstatistical uses. The Directory should not be made available for such uses. The first reason is that the coding in the Directory is not based on any extraordinary effort to ensure that every code is as correct as possible. The codes will be

at an acceptable level for statistical programs. Where an establishment which has a large secondary activity and might be erroneously coded based on that activity, the resulting statistics will still be very useful estimates; however, if an establishment would be effected differently by being "miscoded," the effect might be very important. Secondly, companies so far have not had an opportunity to verify their codes in the Directory.

Industrial directories of manufacturers and sometimes wholesalers are published for every State. Many private firms publish similar information. These publications may also include credit ratings, ratings of bonds, net worth estimates, names of principal officers, profiles of consumption potentials, actual employment, whereas the SSEL has only codes and size code information.

Impact of the Industrial Directory on Other Data Collection Programs

Currently, both BLS and the Census Bureau collect employment, payroll and hours worked data. This duplication is now necessary because of lack of comparability in the identity of particular establishments which cannot be reconciled under current laws. The Bureau of Labor Statistics collects monthly data which could be summarized to an annual level to make it comparable to other Census statistics.

When the Industrial Directory is operating and the reconciliation of the definitions of establishments with other agencies is complete, the collection of employment information by the Census Bureau could be reduced or minimized, and Bureau of Labor Statistics data could be used for the basic data in many cases. This would require a greater degree of cooperation and a change in the BLS confidentiality arrangement with their respondents and the cooperating States.

Additional size codes for characteristics such as number of hospital beds, number of classrooms, acres in farms, or kilowatt generating capacity could also be incorporated to maximize the Directory's usefulness in specialized programs.

In these and other areas, there may be data such as receipts, production data and capital expenditures which could be transferred to the Census Bureau to minimize duplication and collecting burden.

Enhancement of Industrial Directory Use

The annual economic data program is based on the wealth of data backing up the Industrial Directory. The data used to determine the size codes for payroll, employment, sales receipts, and many other items can be related by Census to the establishments in the Directory. That data could be used to link establishment or company data from other agencies and summarize the individual data to discloseable levels to provide a wealth of statistics for various other agency uses.

For instance, a business survey collecting certain characteristics but not certain economic data could provide those characteristics which they collected to the Census Bureau. The data could temporarily supplement the Industrial Directory background data and summary economic tabulations based on business survey characteristics could be developed from Census data. This use of the Directory and its wealth of the background information would require complex disclosure analysis programs, but nevertheless, could provide a very useful statistical data for other agency uses. *It should be reiterated that individual company or establishment data would not be available to the using agency.*

Possible Further State Use of the Industrial Directory

A possible use of the Directory beyond the uses proposed in this statement would be to widen the scope of its clientele by including State statistical agencies not now directly coordinating with Federal statistical programs, if the State had stringent confidentiality legislation. For such later extension a State should have confidentiality legislation following Federal confidentiality laws such as Title 13 before it could be allowed broader access to the Directory. In no case would information on establishments or companies that are not operating in the State be provided to State agencies. Canada has developed model confidentiality legislation and several provinces have enacted that legislation to provide as high or higher level of protection and penalties for unauthorized disclosure or use of the information.

Appendix

A statement developed by the Industrial Directory technical group follows.

ESTABLISHMENT LIST STATEMENT

Nature of This Statement.—This statement represents a Government-wide consensus of the broad conceptual base from which each agency can make advance plans to participate efficiently and effectively in the SSEL program. However, this statement is not intended to be a detailed or technical "blueprint" of specifications from which the participating agencies can prepare their operational procedures for implementation. The use of the list in Federal statistical programs will be coordinated by the Office of Federal Statistical Policy and Standards.

More specifically, this statement is intended to provide (a) sufficient information about the proposed list program and its use by statistical agencies other than the Census Bureau and their participation in the program, so that the agency's policy officials and legal counsel may fully review the SSEL proposal and its implications for the agency; (b) sufficient information so that the agency can approve (or modify) the proposed role to be played by the agency; and (c) sufficient "lead" time for the agency officials to initiate any legislative, administrative, operational, or program content changes that may be required to utilize the SSEL in the agency's statistical programs. This statement is also intended to inform Congress and the public of future development of the SSEL program and basis and purpose of the proposed legislation.

More detailed criteria for determining qualifying agencies and guidelines for assuring adherence to the confidentiality standards will be developed by an interagency task force.

THE PROPOSED "STANDARD STATISTICAL ESTABLISHMENT LIST" PROGRAM FOR FEDERAL STATISTICAL AGENCIES

Introductory Note.—This section outlines the principal elements required of a Federal Standard Statistical Establishment List (SSEL) program to assure its effective use by participating statistical agencies. It summarizes the scope and contents, objectives, sources, uses, confidentiality requirements, and other essential elements needed to develop and maintain a viable Federal Government-wide statistical resource "list." Although the proposal is essentially to be implemented within the context of the existing decentralized Federal Statistical System, it necessarily includes some aspects that may require significant and innovative changes for both source and user agencies in the present framework of their statistical programs' content, operational techniques and/or confidentiality practices.

The objective of these changes is to improve data quality and reduce costs in the overall Federal Statistical System and to reduce the burden on the public of responding to Federal requests for information.

Historical Background.—In October 1968, the Bureau of the Budget designated the Census Bureau as the "focal agency" for an establishment list of U.S. business enterprises and their establishments for the use of statistical agencies. The availability of such a central list facility, it was believed, would improve significantly the comparability among important economic data series published by the various statistical agencies for ostensibly identical industries, sizes of operations, and geographic areas.

Existing classification differences were the result of differences in definition and coverage of the business enterprises and establishments that constituted the reporting units for each agency. Several "matching" studies conducted in the past have indicated that these data discrepancies occur, to a large extent, because each statistical agency was obliged under existing laws governing confidentiality, to compile and maintain its own files of businesses. Since these agencies independently assigned their industry, area, and size codes to the reporting units included in their respective surveys, the results were often inconsistent among agencies and burdensome on respondent companies. The routine exchanges of such classifying information among the statistical agencies to reconcile or eliminate these data discrepancies has not been possible in most instances due in part to the wide variety of data confidentiality provisions under which these agencies operate.

To assist the Census Bureau staff in the initial development of the Government-wide statistical establishment list system and use by the Census itself, funding for the project was provided, starting in fiscal year 1972. In addition, an interagency task force (first led by the Statistical Policy Division in OMB and now led by the Office of Federal Statistical Policy and Standards) was set up in 1972 to promote the interchanges

of ideas between Census and the major participating source and user agencies in solving the operational and legal problems inherent in creating a viable Federal list system.

Scope and Content.—The SSEL, when fully operational, will consist of a computerized file of all U.S. business firms and their establishments. It will have for each organizational unit: the name, mailing and actual address, tax identification number, physical location code, Standard Industrial Classification or Enterprise Standard Industrial Classification code, product class codes or merchandise line codes when these codes are available from existing surveys, central administrative office or auxiliary code, legal-form-of-organization code, and standard size class codes for employment, payroll, and total receipts or business receipts. Individual establishments on the list will be identified with the legal entity of which they are part. In addition, establishments of multilocation enterprises can be identified because the establishment identification code contains the company or enterprise code.

The frequency of up-dating and verifying the accuracy of these list records will vary, of course, depending upon the size and industry characteristics of the particular entities involved and the availability of list-type information from existing administrative and statistical data records of verious source agencies participating in this project.[1]

Objectives of the Proposed Program.—Although the major objectives of this program have been stated in a variety of ways, with differing emphasis by various groups, over the past three decades, the following requirements are considered to be fundamental in developing policies, in setting goals, and in seeking support and cooperation for the program by participating statistical agencies, other governmental bodies, the business community, and the general public. To succeed in obtaining this broad base of support, the proposed program must show that it is likely to achieve the following objectives. As a minimum:

1. Improve significantly the comparability among published economic data series which purport to represent the same industry, size, or geographical location of firms or establishments. At present, differences arise due to the need of different agencies to classify and tabulate data independently without reference to a government-wide source of classification codes.
2. Reduce the duplicative data collection costs to government and the duplicative reporting burden on the business community. Both costs are now largely unavoidable because of the need for most statistical agencies to develop and update their own list files.
3. Provide a current file of the business universe organized within an accessible statistical framework so that scientific statistical samples (e.g., stratified by industry, area, size, or other available economic characteristics) can be drawn. It should provide flexibility so that samples can be selected from the fully consolidated enterprise, unconsolidated legal entity, or individual establishment level. At present some agencies cannot develop adequate samples since they do not have access to a complete list of firms with the data necessary from which to construct the sample.
4. Provide, wherever existing and possible, both primary industry codes and economic activity codes such as merchandise line codes and product class codes, so that such information can be used in developing more efficient sampling frames for particular uses. Some agencies do not (and should not) collect such data direct from businesses.
5. Develop as an intergral by-product of the SSEL system, an annual publication program presenting the statistical information compiled as part of the List operation. This publication substitutes for the County Business Patterns program, based on the Social Security Administration's (SSA) Reporting Unit concept, and is issued as a joint project of the SSA and the Bureau of the Census. The new publication will provide those agencies using the SSEL file, and all other interested data users, with equivalent benchmark "control totals" of the universe for their individual programs.

[1] The year of the latest SIC code update is available for establishment records, along with a source code indicating a reliability category (e.g. the SIC or size class indicator was obtained from a detailed, data oriented survey, and therefore has a "high" reliability.)

6. Assure list accessibility to those Federal statistical agencies who can ensure, on the basis of legal or administrative regulation, and with the protection afforded by the proposed bill, the confidentiality of the data collected from business respondents in any statistical establishment list files. In addition, the program must provide for effective implementation by these user statistical agencies of the confidentiality guidelines and disclosure avoidance procedures required by such use of the list files.

Source of Input.—To minimize costs and maximize the use of existing statistical programs and computer technology, the development of the initial file proceeded as a "piggy-back" extension of the 1972 Economic Censuses operations and its subsequent annual, quarterly, and monthly industry and trade surveys including the Agricultural Census, as well as the Bureau's Company Organization Survey and supplemental classification questionnaires. As such, the primary information sources of the initial file consisted of the Internal Revenue Service (IRS) 1972 business income tax return files, the IRS-SSA 1972 quarterly employer payroll tax and business "birth" files, augmented by the 1972 Economic Censuses and reports of all multi-unit firms and large single-unit firms.

To maintain this initial file on a current, accurate, and minimum-cost basis, supplemental and/or substitute sources of information will be explored. Data from the IRS Business Master File will be incorporated into the file annually. Those statistical agencies with major responsibilities for collecting current economic data from broad segments of the business universe (e.g., Labor Department's Bureau of Labor Statistics and Agriculture Department's Economics, Statistics, and Cooperatives Service), as well as those agencies in the Department of Health, Education, and Welfare covering specific segments of the services sector of the economy (e.g., Office of Education, National Center for Health Statistics, etc.) will be likely sources as well as users. This coordination of statistical information will enable user programs to obtain the latest changes without having to request the identical information from respondents through additions to their individual programs. Reconciliation of establishment definitions and codes will be done where there are discrepancies that are important to the agencies involved.

Users of the List File.—Users of the list will be limited to Federal statistical agencies (and their cooperating State agency counterparts) that conduct statistical surveys and that can assure by legal or administrative regulation that the individual reports submitted by the respondent companies are confidential and will not be used for investigation, taxation, enforcement, or judicial proceedings.

Confidentiality Requirements.—The list file will be confidential and must be used only for statistical purposes. Any individual company or establishment information collected as a result of using the file for sampling frames or mailing lists must also be confidential and only be released in a form that will not identify data pertaining to the particular establishments or companies.

The list can be used to support Federal/State coordinated statistical programs if legal or administrative protection for the list information and data collected using the list can be provided at the State level as well.[2] List information for establishments not within a State or enterprises not operating in a State will not be available to that particular State.

Uses of the List.—Agencies may want samples drawn for their purposes by the Bureau of the Census where additional information such as a more detailed employment break, the amount of a particular commodity produced, or the amount of a particular commodity class sold will be beneficial to sample design. Such specialized samples can be provided on a reimbursable basis, but only the list information will be furnished to the agency.

The total establishment list will be made available to eligible agencies, but in most cases only a portion will be needed. In many cases only various segments and/or samples required for their particular purposes will be needed by the agencies (for instance, all establishments and companies with over 20 employees in particular industry divisions and a sample of the smaller ones).

Items of information that are not needed by an agency will not be provided.

[2] Where States have laws allowing or requiring publication of directories, the list could be used only under the McGranery Decision. That is, SIC codes could be matched and corrected, but additional information will not be available.

Maintenance of the List.—The list will be updated for creation or dissolution of firms or establishments ("births" and "deaths") on a continuous basis, but will be available to users on the basis of the latest available information, for instance, on all establishments owned or operated at any time during a specific calendar year.

All information in the list will be updated whenever new information is available, but at a minimum all employer firms (both multiestablishment and single establishment) will be updated annually from one or more previously described sources or input. Single establishment firms having no paid employees will be updated at least every 5 years.

Charges For List Use.—All costs of updating and maintaining the list will be borne by the Census Bureau.

Charges to agencies will be based on the actual cost of providing the list or sample information. Costs of more frequent updating or for specialized processing of the SSEL will have to be negotiated.

CURRENT DEVELOPMENTS

REPORT ON CHANGES IN DOMESTIC ENERGY CONSUMPTION

The Bureau of Economic Analysis of the U.S. Department of Commerce has published data and analysis of short- and long-run changes in domestic energy consumption (in British thermal units) per dollar of real gross domestic product (BTU/GDP) in *BEA Staff Paper No. 30: The Energy/Real Gross Domestic Product Ratio—An Analysis of Changes During the 1966–1970 Period in Relation to Long-Run Trends.*

According to the report, the trend in the BTU/GDP ratio has been downward since 1929. This means the consumption of energy has grown less rapidly than the total output of the economy.

Although the long-run trend of the BTU/GDP ratio has been downward, there have been periods when the ratio has increased. The most recent period was between 1966 and 1970. During this period, the ratio rose so rapidly that it reached its early-1950's level. The ratio again declined from 1971 to 1975, but at such a moderate rate that in 1975 it was still above the 1966 level. Since there was no net reduction in the ratio over the past two decades, the 1966–1975 period may reflect a break in the long-run trend or it may reflect transitory factors having limited implications.

The report also analyzes the BTU/GDP ratio in relation to the following: short-run changes in GDP; changes in employment and in population; changes in energy consumption, in relative energy prices, and in various categories of energy use.

BEA Staff Paper No. 30: The Energy/Real Gross Domestic Product Ratio—An Analysis of Changes During the 1966–1970 Period in Relation to Long-Run Trends is available from National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161, at a price of $6.00. The Accession Number is PB 277 235. (MARTIN L. MARIMONT, BUREAU OF ECONOMIC ANALYSIS, DEPARTMENT OF COMMERCE, telephone (202) 532-0758.)

ENVIRONMENTAL QUALITY CONTROL FINANCES OF GOVERNMENTS

Environmental Quality Control—Governmental Finances: Fiscal Year 1975–76 is the seventh report published by the Census Bureau on governmental activities related to water quality control, land quality control, and air quality control. The report presents detailed expenditure statistics for the 50 States, and the 48 largest cities and 58 largest counties according to the 1970 Census of Population. Estimates of total local government expenditure for sewerage and other sanitation activities (i.e., refuse collection and disposal, and street cleaning) are presented by State and type of government and by county area in 74 large SMSA's.

The study reveals that Federal, State and local governments spent approximately $10.2 billion during fiscal 1975–76 for environmental quality control. A distribution by activity shows that water quality control accounts for $7.0 billion, land quality control $2.5 billion, air quality control $376.1 million, and *other* environmental quality control $280.6 million.

The report also includes a summary of selected revenue and debt transactions related to environmental quality control activities of the 50 States and the largest cities and counties. Such revenues amounted to $1.6 billion in fiscal 1975–76. The major source of this revenue was money received from other governments (including the Federal Government) which amounted to $881.7 million, or about 54% of the total. State and large local government debt outstanding at the end of the fiscal year for environmental purposes totaled $6.8 billion. These same governments also issued $730 million in long-term debt during the fiscal year and paid out $323.8 million in interest.

Persons interested in obtaining copies of this report or additional information regarding it,

should address their inquiry to William C. Fanning, Chief, Special Projects Branch, Governments Division, Bureau of the Census, Washington, D.C. 20233. (WILLIAM FANNING, BUREAU OF THE CENSUS, DEPARTMENT OF COMMERCE, telephone (301) 763-7704.)

REVISION OF FRB MONEY STOCK MEASURES

The Federal Reserve's money stock and related measures have been revised to incorporate the latest benchmark adjustments for nonmember banks and revised seasonal factors. The current revision includes corrected data for the universe of nonmember banks for December 1976, as well as such universe figures for March, June, and September 1977.

Seasonal factor revisions, based on an additional year of data, smoothed considerably the weekly and monthly data for recent years. Historical data were affected very little by the revision. Monthly and weekly data from 1959 to date are available from the Banking Section, Division of Research and Statistics. (DARWIN L. BECK, DIVISION OF RESEARCH AND STATISTICS, FEDERAL RESERVE BOARD, telephone (202) 452-3921.)

NEW FRB COMMITTEE FORMED

The Board of Governors of the Federal Reserve System has announced the formation of a committee of experts to review the seasonal adjustment techniques used by the Board in adjusting financial data.

The committee will be chaired by Geoffrey H. Moore of the National Bureau of Economic Research in New York. Other members are Professor George E. P. Box of the University of Wisconsin, Madison; Hyman B. Kaitz, Alexandria, Virginia; Professor James A. Stephenson, Iowa State University, Ames; and Professor Arnold Zellner, University of Chicago.

The committee has been requested to examine the applicability of seasonal adjustment techniques to financial data, with a view to recommending the most appropriate methods to be used. The Board is especially concerned with seasonal adjustment of weekly and monthly series for the monetary aggregates, their components, and related bank reserve and credit flows.

The committee will assess the usefulness of various seasonal adjustment techniques—including those presently employed by the Board and reasonable alternatives—in light of:

1. The high degree of volatility of many weekly, monthly, and even quarterly financial series.
2. The impact of monetary policy decisions on series, such as the money supply, that are closely related to policy.
3. The stability (or lack thereof) of the underlying seasonal movement and the ability of seasonal adjustment methods to develop reasonably reliable seasonal factors for a year ahead.
4. The desirability of mutually consistent behavior for related seasonally adjusted series, such as bank reserves, deposits, and credit.

In its analysis, the committee will have available the material on seasonal adjustment of the money supply prepared for the Advisory Committee on Monetary Statistics that reported its conclusions to the Board in June 1976. (DAVID A. PIERCE, STAFF LAISON FOR THE COMMITTEE, DIVISION OF RESEARCH AND STATISTICS, FEDERAL RESERVE BOARD, telephone (202) 452-3895.)

HOUSEHOLD MONEY INCOME IN 1976

A report on "Household Money Income in 1976 and Selected Social and Economic Characteristics of Households" has recently been published by the Bureau of the Census. This report contains data on household money income distributions cross-classified by various demographic, social, and economic characteristics of households, and other characteristics such as residence, size, and type of household.

The report shows that the median income of households in the United States rose to $12,690 in 1976, an increase of about 8% over the 1975 median of $11,800. Although most of this increase was eroded by rising prices, the net gain in real purchasing power was still statistically significant. After adjusting for the 6% rise in prices between 1975 and 1976, the 1976 median in terms of constant dollars increased by about 2% over the 1975 median. The increase of 2% in real median household income between 1975 and 1976 marks a reversal from the downward trend that had prevailed since 1973.

Total aggregate household money income was $1.1 trillion in 1976, an increase of 10.2% over

1975. This increase resulted from a 1.7% increase in the number of households (1.3 million additional households) and a 8.3% increase in the average (mean) household income.

Of the 74.1 million households in the United States in March 1977, 10.8 million had incomes of $25,000 or more. These households, which constituted 15% of all households, received 35.2% of the aggregate income in 1976. Another 20.1 million households (27%) had incomes between $15,000 and $25,000 and received 35% of the aggregate income. At the other end of the scale, 13.2 million households (18%) had incomes under $5,000 and received 3.5% of the total aggregate income.

Copies of this report, "Household Money Income in 1976 and Selected Social and Economic Characteristics of Households," *Current Population Reports,* Series P–60, No. 108 (88 pages, $2.50) may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 20402. (ROBERT W. CLEVELAND, BUREAU OF THE CENSUS, DEPARTMENT OF COMMERCE, telephone (301) 763-5682.)

CORPORATION INCOME TAX RETURNS

The Internal Revenue Service has recently released the *Preliminary Report, Statistics of Income—1975, Corporation Income Tax Returns.* The report presents statistical estimates of selected income statement, balance sheet and tax items. The data are classified by industry group and, to a lesser extent, by size of total assets.

The estimates are based on approximately 96% of the returns included in the regular Statistics of Income sample for the 1975 tax year. More comprehensive statistics from income statements and balance sheets, based on the full sample of returns, will be available in the complete report for 1975 now in preparation.

Copies of the 23-page *Preliminary Report, Statistics of Income—1975, Corporation Income Tax Returns,* may be purchased for $1.20 from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. (JOEL R. STUBBS, INTERNAL REVENUE SERVICE, DEPARTMENT OF THE TREASURY, telephone (202) 376-0102.)

SELECTED CHARACTERISTICS OF TRAVEL TO WORK IN 21 METROPOLITAN AREAS: 1975

This report presents the first published results from the Travel-to-Work Supplement to the Annual Housing Survey, initiated in 1975 under the sponsorship of the U.S. Department of Transportation.

Topics covered include major mode of transportation to work, incidence of carpooling, recent changes in major mode, and the length and duration of commuting trips. The findings also include a comparison between public transportation use in 1975 and 1970.

Copies of the report, "Selected Characteristics of Travel to Work in 21 Metropolitan Areas: 1975," *Current Population Reports,* Series P–23, No. 68 (19 pp., $1.10) may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. (PHILIP N. FULTON, BUREAU OF THE CENSUS, DEPARTMENT OF COMMERCE, telephone (301) 763-5226.)

CHILD SUPPORT ENFORCEMENT REPORT

The Office of Research and Statistics, Social Security Administration, has released another report containing data on aid to families with dependent children.

1975 Recipient Characteristics Study: Part 2. Child Support Enforcement presents data on child support enforcement in 1975; efforts to obtain support; court order and parent's agreement for support; and payments of support.

Single copies of this report are available from the Publications Staff, Office of Research and Statistics, Social Security Administration, Room 1120, Universal North Building, 1875 Connecticut Avenue, N.W., Washington, D.C. 20009, telephone (202) 673-5209. (ROBERT E. ROBINSON, SOCIAL SECURITY ADMINISTRATION, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE, telephone (202) 673-5576.)

TRENDS IN CHILDSPACING: JUNE 1975

The Bureau of the Census recently issued a new report on children. Among the principal findings of this report are the following:

Fewer teenage marriages were reported by women in their twenties than women in their thirties at the time of the survey.

The percentage of women bearing a child during their teens is lower for women born from 1950 to 1954 than for any 5-year cohort of women since those born from 1925 to 1929.

Although 22% of women first married in the period 1970 to 1974 had their first child by 7 months after marriage, which is a relatively high percentage, only 33% had their first child by 1 year after marriage, which is less than for any group of women first married since 1950 to 1954.

Among women first married during the 45 years from 1930 through 1974, those married in the period 1955 to 1964 showed the highest percentage becoming mothers by 1 and 2 years after marriage.

For both Black and White women, the median interval from first marriage to first birth was 5 months longer for births occurring in 1970 to 1974 than it was for first births occurring in 1965 to 1969.

Median intervals from the previous birth for second, third, and fourth births occurring in 1970 to 1974 are greater than in any 5-year period since 1940 to 1944.

Information on the timing and spacing of childbearing contained in this report is based on marriage and birth histories obtained in the June 1975 Current Population Survey. Detailed tables show childspacing data as related to age, sex, race, education, metropolitan-nonmetropolitan residence, occupation of husband, and current family income.

A public use data file, including both basic labor force data and supplementary marital and fertility history data from the June 1975 Current Population Survey, is currently available at a cost of $80 per reel of data tape. For information concerning this data file, contact the Chief, Customer Services Branch, Data User Services Division, Bureau of the Census, Washington, D.C. 20233, telephone (301) 763-2400.

Copies of *Current Population Reports,* Series P–20, No. 315, "Trends in Childspacing: June 1975" (123 pp., $3.00) may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. (MAURICE J. MOORE, BUREAU OF THE CENSUS, DEPARTMENT OF COMMERCE, telephone (301) 763-5303.)

CASELOAD STATISTICS: STATE VOCATIONAL REHABILITATION AGENCIES

The Rehabilitation Services Administration has recently released *Caseload Statistics: State Vocational Rehabilitation Agencies-Fiscal Year 1977.* During fiscal year 1977, State rehabilitation agencies served over 1.2 million disabled persons and successfully rehabilitated 291,202 of them into gainful employment. Most of the other persons were still in receipt of services as the fiscal year ended.

The report, composed of many tables and charts with text, has been divided into seven sections, and includes information on volumes of cases flowing into and out of the vocational rehabilitation process in fiscal year 1977, historical caseload trends for 10 or more years, State rates and ranks per 10,000 disabled population, rehabilitation of public assistance recipients and a distinction in caseload movement in fiscal year 1977 between cases of severely and nonseverely disabled persons. The remaining two sections contain detailed caseload activity within each of the 10 geographical regions and 84 State rehabilitation agencies.

Single copies of *Caseload Statistics: State Vocational Rehabilitation Agencies, Fiscal Year 1977* are available from the Division of Monitoring and Program Analysis, Rehabilitation Services Administration, 330 C Street, S.W., Washington, D.C. 20201. (JUDY MILLER, REHABILITATION SERVICES ADMINISTRATION, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE, telephone (202) 245-0331.)

SOCIAL SECURITY BENEFICIARIES IN METROPOLITAN AREAS

The Office of Research and Statistics of the Social Security Administration recently released statistics on *Social Security Beneficiaries In Metropolitan Areas, 1976.* Data in this report indicates that at the end of 1976, 22.3 million residents of metropolitan areas were receiving $4.5 billion a month in social security cash benefits (70.6 % of the total amount payable to all beneficiaries) under the old-age, survivors, disability, and health insurance (OASDHI) program.

Statistics are compiled for each metropolitan area showing the number of social security beneficiaries residing there grouped by major benefit category; the amount of monthly benefits payable to these beneficiaries; beneficiaries

grouped by age and race for all beneficiaries and by sex for adult beneficiaries; and percentage distributions for retired-worker, disabled-worker, and widow and widower beneficiaries, respectively, by monthly benefit amount. These data are also summarized for the metropolitan and nonmetropolitan areas.

Single copies of *Social Security Beneficiaries in Metropolitan Areas, 1976* (HEW Publication No. (SSA) 78-11929) are available from the Publications Staff, Office of Research and Statistics, Social Security Administration, Room 1120, Universal North Building, 1875 Connecticut Avenue, N.W., Washington, D.C. 20009 (telephone (202) 673-5209). (ROBERT E. ROBINSON, SOCIAL SECURITY ADMINISTRATION, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE, telephone (202) 673-5576.)

EARLY RETIREMENT STUDY

The Office of Research and Statistics of the Social Security Administration has released a Staff Paper (No. 29) entitled *The Early Retirement Decision: Evidence From the 1969 Retirement History Study.*

This is a study of the microeconomic determinants of early retirement among men and nonmarried women aged 58-63. The report uses the first wave of data from the Social Security Administration's 10-year study of the retirement process to examine some of the factors entering into the early retirement decision. The research expands on previous work by including two categories of explanatory variables not usually available in microeconomic studies—local labor market conditions and specific job attributes.

Copies of *The Early Retirement Decision: Evidence From the 1969 Retirement History Study* (HEW Publication No. (SSA) 78-11855) may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402; Stock No. 017-070-00305-2. (ROBERT E. ROBINSON, SOCIAL SECURITY ADMINISTRATION, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE, telephone (202) 673-5576.)

SSI STATE AND COUNTY DATA

The Office of Research and Statistics of the Social Security Administration has released *Supplemental Security Income, State and County Data, June 1977.* This publication presents data on the State and county distribution of federally administered payments to persons receiving supplemental security income in June 1977, in addition to State data on the combined amounts of Federal supplemental security income payments and federally administered State supplementary payments.

Single copies of *Supplemental Security Income, State and County Data, June 1977* (HEW Publication No. (SSA) 77-11976) are available from the Publications Staff, Office of Research and Statistics, Social Security Administration, Room 1120, Universal North Building, 1875 Connecticut Avenue, N.W., Washington, D.C. 20009 (telephone (202) 673-5209). (ROBERT E. ROBINSON, SOCIAL SECURITY ADMINISTRATION, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE, telephone (202) 673-5576.)

FOUR SOCIAL SECURITY BULLETIN REPORTS

The Office of Research and Statistics in the Social Security Administration has recently announced the availability of four *Social Security Bulletin* reports.

Pension Coverage and Benefits, 1972: Findings From the Retirement History Study (Social Security Bulletin, February 1978) examines coverage by an employee pension plan on the longest job and the extent to which covered workers received an employee pension upon retirement and the size of their benefits. It also examines the joint receipt of employee pension and OASDI benefits and the size of the combined benefits. Pension data are analyzed by class of worker, sex, and characteristics of the longest job (industry, occupation, tenure, recency of job, extent of employment, and annual earnings rate). The majority of completely retired individuals in their early to middle sixties in 1972 did not receive employee pension benefits in that year. Women in private industry were the most disadvantaged in this regard.

First-Year Impact of SSI on Economic Status of 1973 Adult Assistance Populations (Social Security Bulletin, February 1978) analyzes the impact of Supplemental Security Income. (SSI) on the economic status of the 1973 adult assistance populations. The analysis considers the United States sample as well as samples for five individual States. Most of these beneficiaries were automatically transferred to SSI, and the majority realized an improved economic situation be-

cause of SSI. SSI proved most beneficial to the poorest persons transferred from the State public assistance programs.

Social Security Amendments of 1977: Legislative History and Summary of Provisions (Social Security Bulletin, March 1978) describes the legislative history of the Social Security Amendments of 1977 and contains a summary of the amendments. The major provisions revise the benefit structure so that future replacement rates—initial benefits as a percent of previous earnings—will be relatively stable and revise the tax structure to restore the financial soundness of the program in the short range and into the 21st century. Other significant provisions include: An increased special minimum benefit for long-term workers with future automatic adjustment to prices; a minimum benefit frozen at the December 1978 level (roughly $121) with automatic adjustment only for those on the rolls; a higher retirement test exempt amount for beneficiaries aged 65 and over; an annual measure of "quarter of coverage" and other changes in annual wage reporting provisions; and authorization for agreements with foreign countries for limited coordination between social security systems.

Financial Status of Social Security Program After the Social Security Amendments of 1978 *(Social Security Bulletin,* March 1978) reviews the causes of the recent operating deficits, describes the effects of the amendments that most influence the social security program's financial status, and gives projections of income and expenditures under the new law. The Social Security Amendments of 1977 resulted in substantial improvement in the current and projected financial condition of the OASDI program, but showed little change in the status of the hospital insurance program.

Reprints of the articles are available from the Publications Staff, Office of Research and Statistics, Social Security Administration, Room 1120, Universal North Building, 1875 Connecticut Avenue, N.W., Washington, D.C. 20009, telephone (202) 673-5209. The *Social Security Bulletin* is available by subscription, at $14 a year, through the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. (Robert E. Robinson, Social Security Administration, Department of Health, Education, and Welfare, telephone (202) 673-5576.)

CHANGING PATTERNS OF DOCTORAL DEGREE AWARDS TO WOMEN

The National Center for Education Statistics announces publication of a brief report entitled "Doctoral Degree Awards to Women." The report examines changes which have taken place, between 1970-71 and 1975-76, in the representation of women among doctoral degree recipients in various fields of study. Increases in women's percentage representation were observed in all of the 23 broad fields of study. Increases were greatest in those fields which traditionally have been regarded as women's fields. The report is based on data collected through the annual Survey of Degrees and Other Formal Awards Conferred (part of NCES's Higher Educational General Information Survey (HEGIS)). Companion reports will soon be issued dealing with Bachelor's, Master's, and First Professional degree awards to women.

While supplies last, single copies can be obtained gratis by written request to: George H. Brown, Acting Chief, Systems Design and Analysis Branch, DPVES, National Center for Education Statistics, 400 Maryland Avenue, S.W., Washington, D.C. 20202. (O. Jean Brandes, National Center for Education Statistics, Department of Health, Education, and Welfare, telephone (202) 472-5026.)

RECENT NSF REPORTS

The following briefly describes some reports recently released by the National Science Foundation (NSF).

"Utilization of Science and Engineering Doctorates in Industrial Research and Development," *Science Resources Studies Highlights* (NSF 78-301) is based on a survey of NSF's Industrial Panel on Science and Technology. The Panel included representatives of all major types of industry involved in research and development. The survey letter addressed to directors of R&D activities asked if in recent years their firms had increased the proportion of doctorates among their hires for research and development and, if so, to explain why this had taken place; whether they expect to increase this proportion in the future and, if so, why; and whether underutilization of Ph.D's is a problem in their firms.

Copies of the *Highlights* are available gratis upon request from the Division of Science Resources Studies, National Science Foundation, 1800 G Street, N.W., Washington, D.C. 20550.

"Scientific and Technical Personnel in Private Industry, 1960-70 and 1975," *Reviews of Data on Science Resources,* No. 30 (NSF 78-302) reports on the results of a survey on employment of scientists, engineers, and technicians in private industry conducted for NSF by the Bureau of the Census. Data show 1975 employment levels by industry and occupation as well as employment in research and development and energy-related activities. In addition, the report examines trends in private industry employment of scientists and engineers from 1950 to 1975.

Copies of the "Scientific and Technical Personnel in Private Industry, 1960-70 and 1975," *Reviews of Data on Science Resources,* No. 30 (NSF 78-302) are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 for 80 cents, stock number 038-000-00361-5.

Detailed Statistical Tables for *Characteristics of Experienced Scientists and Engineers, 1976* (NSF 78-305) (biennial report previously entitled *Characteristics of the National Sample of Scientists and Engineers)* are available gratis upon request from the Division of Science Resources Studies, National Science Foundation, 1800 G Street, N.W., Washington, D.C. 20550. (CHARLES E. FALK, DIVISION OF SCIENCE RESOURCES STUDIES, NATIONAL SCIENCE FOUNDATION, telephone (202) 634-4622.)

NSF DATA USER GUIDE

The *Data User Guide* to the Integrated Data Base of NSF's University Science Statistics Program describes the data structures and formats of the public-use tapes derived from the following annual surveys of institutions of higher education: (1) Graduate Science Student Support and Postdoctorals, Fall 1972-77 for doctorate institutions and Fall 1975-77 for master's institutions; (2) Scientific and Engineering Expenditures at Universities and Colleges, FY 1972-77; (3) Scientific and Engineering Personnel Employed at Universities and Colleges, January 1973-78; and (4) Federal Support to Universities, Colleges, and Selected Nonprofit Institutions, FY 1971-76. Statistics from these four surveys are analyzed in a series of NSF publications.

The *Guide* provides access to detailed data on individual institutions under a common coding system for purposes of further research and analysis. Additional services offered to potential users of the program include: 4-year profiles of any institution in the data base, special-purpose statistical tables, and special-purpose data tapes.

Copies of the *Guide* can be obtained from Moshman Associates, Inc., 6400 Goldsboro Road, Washington, D.C. 20034 telephone (301) 229-3000. For additional information on the University Science Statistics Program, contact Penny D. Foster, Division of Science Resources Studies, National Science Foundation, telephone (202) 634-4630. (CHARLES E. FALK, DIVISION OF SCIENCE RESOURCES STUDIES, NATIONAL SCIENCE FOUNDATION, telephone (202) 634-4622.)

DIRECTORY OF FEDERAL STATISTICS FOR LOCAL AREAS

The Bureau of the Census has released the *Directory of Federal Statistics for Local Areas: A Guide to Sources, 1976.* Covering the period 1966-1976, this government-wide guide excludes statistics but shows the reader where to find data on over 100 kinds of areas smaller than States—from counties and cities to Indian reservations; from low-income neighborhoods to fishery districts. With such new topics as wiretapping, pollution abatement, and revenue sharing, this publication directs the reader to more than twice the information listed in the first edition, issued in 1966; the new report abstracts 361 publications and indexes 2,300 subjects—compared with 182 publications and 900 index entries in the previous report.

Also, the 1976 version gives more detail to aid in locating data, including not only titles and report numbers of publications but also specific table numbers, addresses of Federal agencies, and Government Printing Office catalog numbers when available. The abstracts, too, are both more explicit and easier to understand, relying more on narrative, less on symbols.

New appendixes feature an article on the availability of unpublished statistics in microform, data files, and special tabulations—not abstracted in the directory—and an annotated list of over 75 guides to Federal and municipal data, published and unpublished, on both large and small types of areas.

For each small area, the new directory spans the entire range of social, economic, and techni-

cal data available from the Federal Government, including chapters on agriculture, banking and finance, commerce and trade, communication and transportation, crime and law enforcement, education, environment and climate, governments and revenue sharing, housing and construction, income and earnings, labor and employment, manufacturing, mineral industries, population, prices, and vital statistics and health.

Arranged in tables, these chapters present information in separate columns showing the general subject, a detailed abstract of the statistical table, the specific areas to which the data apply, and the source. All sources are keyed by number to a bibliography. The descriptions are supplemented by appendixes showing the population and rank of standard metropolitan statistical areas (SMSA's) and of cities of over 100,000.

The 372-page *Directory of Federal Statistics for Local Areas: A Guide to Sources, 1976* may be purchased ($5.50, stock number 003-024-01553-6) from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Copies may also be purchased in, or ordered from, Government Printing Office bookstores, usually located in the Federal Building of larger cities. Consult your local telephone directory. (MARY GORDON, BUREAU OF THE CENSUS, DEPARTMENT OF COMMERCE, telephone (301) 763-5574.)

FACTFINDER FOR THE NATION

The Bureau of the Census has replaced its 1970 general information booklet with a new series of 17 brochures, each carrying the name *Factfinder for the Nation*, but most covering some particular aspect of the Bureau's activities. Each brochure has 4 pages, except No. 4 (12 pages) and No. 5 (8 pages). The titles are as follows: 1, Minority Statistics; 2, Availability of Census Records About Individuals; 3, Agricultural Statistics; 4, History and Organization; 5, Reference Sources; 6, Housing Statistics; 7, Population Statistics; 8, Geographic Tools; 9, Construction Statistics; 10, Retail Trade Statistics; 11, Wholesale Trade Statistics; 12, Statistics on Service Industries; 13, Transportation Statistics; 14, Foreign Trade Statistics; 15, Statistics on Manufactures; 16, Statistics on Mineral Industries; and 17, Statistics on Governments.

The entire series may be purchased from Subscriber Services (Publications), Bureau of the Census, Washington, D.C. 20233, for $3.25, or individual brochures at 25 cents each, except No. 4, which is 30 cents. A discount of 25% is available on orders of 100 copies or more of one brochure sent to one address. (FREDERICK G. BOHME, BUREAU OF THE CENSUS, DEPARTMENT OF COMMERCE, telephone (301) 763-7337.)

CONFERENCE ON CATALOGING AND INFORMATION SERVICES

The Conference on Cataloging and Information Services for Machine-Readable Data Files was held March 29–31, 1978 at Airlie House, Warrenton, Virginia. The Conference concluded that standard bibliographic control procedures and related information services are urgently needed to improve user access to machine-readable data resources. A secretariat is being formed to facilitate work of voluntary groups who will be testing standard procedures for cataloging. An advisory committee will be formed to coordinate and direct subsequent developments. A list is being created of all organizations interested in this subject. Persons on this list will be sent a copy of the conference proceedings and information about subsequent developments. They will be invited to participate in the developmental activities which will precede creation of standardized national procedures for bibliographic control of machine-readable data files. Persons who wish to be placed on the list should write to:

MRDF Cataloging Conference Secretariat
DUALabs
Suite 900
1601 North Kent Street
Arlington, Virginia 22209

The present conference advisory panel is composed of:

Gordon Williams, Center for Research Libraries
Sue Dodd, Social Science Data Library, Institute for Research in Social Sciences, University of North Carolina
Joseph W. Duncan, Office of Federal Statistical Policy and Standards
Judith Rowe, Princeton-Rutgers Census Data Project, Princeton University

(KAREN STROUP, DATA USE AND ACCESS LABORATORIES, telephone (703) 525-1480.)

UN DEMOGRAPHIC YEARBOOK 1976

The United Nations Statistical Office recently issued the *Demographic Yearbook, 1976*. This is the 28th issue of this publication. It contains a compilation of international demographic statistics, including for over 220 countries or areas of the world available data on population size, natality, mortality, nuptiality and divorce.

This issue features marriage and divorce statistics as a special subject and presents for a 20-year period the annual number of marriages and divorces and corresponding crude rates. More detailed data on marriage include marriages by age and previous marital status of groom and bride. Divorce statistics are presented by age of husband and wife, duration of marriage and number of dependent children. In addition, detailed data are shown on population by marital status and household composition.

The new tables present detailed information on first marriage by age of groom and bride and selected derived measures of nuptiality and divorce.

Urban and rural components of most statistics are shown whenever possible. "Technical Notes" to each table are included.

Copies of *Demographic Yearbook, 1976* (Statistical Papers, Series R. No. 5; 984 pp.; UN Sales No. E/F.77.XIII.1; $42.00 clothbound; $34.00 paperbound) may be purchased from the Sales Section, United Nations, New York, New York 10017. Government agencies should request the discount to which they are entitled, as it is not automatically given.

CORRECTION

The Federal Statistics 1977 report in the February 1978 *Statistical Reporter* (page 135) refers to a "separate survey to estimate the completeness of the census coverage when discussing the 1978 Census of Agriculture. This area sample survey will be an integral part of the census data collection process rather than a means of evaluating coverage. The sentence should read:

> "Providing a supplemental appropriation is approved, another major change will be the inclusion of an area sample to supplement the mailing list and provide more complete census data for publication at the State Level."

PERSONNEL NOTES

FEDERAL RESERVE BOARD

MENDELLE BERENSON, formerly at the Brookings Institution, has joined the Board's staff as Chief of the Economic Editing Unit.

DEPARTMENT OF COMMERCE

Office of Federal Statistical Policy and Standards: JERRY COFFEY, formerly of the Statistical Analysis Division, U.S. Postal Service, has joined the OFSPS staff where he will be working on energy and environment statistics.

SCHEDULE OF RELEASE DATES FOR PRINCIPAL FEDERAL ECONOMIC INDICATORS

June 1978

Release dates scheduled by agencies responsible for the principal economic indicators of the Federal Government are given below. *These are target dates* that will be met in the majority of cases. *Occasionally agencies may be able to release data a day or so earlier or may be forced by unavoidable compilation problems to release a report one or more days later.*

A similar schedule will be shown here each month covering release dates for the following month. The indicators are identified by the title of the releases in which they are included; the source agency; the release identification number where applicable; and the *Business Conditions Digest* series numbers for all BCD series included, shown in parentheses. Release date information for additional series can be found in publications of the sponsoring agencies.

(Any inquiries about these series should be directed to the issuing agency.)

Date	*Subject*	*Data For*
June 1	Composite Indexes of Leading, Coincident, and Lagging Indicators (Press release), Bureau of Economic Analysis (BEA)	April
1	Construction Expenditures (Press release), Census, C–30 (69)	April
1	Factors Affecting Bank Reserves and Condition Statement of Federal Reserve Banks, Federal Reserve Board (FRB), H.4.1 (93, 94)	Week Ending May 31
1	Money Stock Measures, FRB, H.6 (85, 102, 107, 108)	Week Ending May 24
2	Producer Price Indexes (Press release), Bureau of Labor Statistics (BLS) (330–334)	May
2	The Employment Situation (Press release), BLS (1, 21, 37, 40–44, 91, 340, 442, 444–448, 451–453	May
5	Open Market Money Rates and Bond Prices, FRB, G.13	May
6	Consumer Credit, FRB, G.19 (66, 113)	April
6	Manufacturers' Export Sales and Orders, Census, M4–A	April
7	Plant and Equipment Expenditures, BEA (61)	1 Q '78 and 1978
7	Monthly Wholesale Trade (Press release), Census, BW	April
7	Condition Report of Large Commercial Banks, FRB, H.4.2 (72, 112)	Week Ending May 31

Date	Subject	Data For
June 8	Money Stock Measures, FRB, H.6 (85, 102, 107, 108)	Week ending May 31
8	Factors Affecting Bank Reserves and Condition Statement of Federal Reserve Banks, FRB, H.4.1 (93, 94)	Week ending June 7
9	Crop Production, Agriculture	June 1
9	Advance Monthly Retail Sales (Press release), Census (54)	May
12	Supply Demand Estimates, Agriculture	Current Marketing Season
14	Condition Report of Large Commercial Banks, FRB, H.4.2 (72, 112)	Week ending June 7
15	Money Stock Measures, FRB, H.6 (85, 102, 107, 108)	Week ending June 7
15	Factors Affecting Bank Reserves and Condition Statement of Federal Reserve Banks, FRB, H.4.1	Week ending June 14
15	Industrial Production and Related Data, FRB, G.12.3 (47,73–76)	May
15	Manufacturing and Trade: Inventories and Sales, (BEA) (31, 56, 71)	April
15	Food Assistance Programs Results, Agriculture	April
15	Yields on FHA Insured New Home 30-Year Mortgages, HUD (118)	June 1
16	Housing Starts (Press release), Census, C-20 (28, 29)	May
16	Personal Income, BEA (223)	May
19	Bank Rates on Short-Term Business Loans, FRB, E.2 (67)	May 1–15
19	Output, Capacity, and Capacity Utilization, FRB, G.3 (82, 84)	May
20	Revised Corporate Profits and National Income, BEA	1 Q '78
20	Gross National Product (Second Revision), BEA (200, 205, 210)	1 Q '78
21	Advance Report on Durable Goods, Manufacturers' Shipments and Orders (Press release), Census M3–1 (6, 24, 25, 96, 548)	May
21	Summary of U.S. International Transactions, BEA	1 Q '78
21	Condition Report of Large Commercial Banks, Federal Reserve Board (FRB), H.4.2 (72, 112)	Week Ending June 14
22	Money Stock Measures, FRB, H.6 (85, 102, 107, 108)	Week Ending June 14

Date	Subject	Data For
June 22	Factors Affecting Bank Reserves and Condition Statement of Federal Reserve Banks, FRB, H.4.1 (93,94)	Week Ending June 21
22	Grain Stock Report, Agriculture	June 1
22	Hogs and Pigs, Agriculture	June 1
23	Supply Demand Estimates, Agriculture	Current Marketing Season
23	Average Yields of Long-Term Bonds, Treasury Bulletin (115, 116)	April
26	Export and Import Merchandise Trade, Census, FT–900 (602, 612)	May
28	Work Stoppages (Press Release), BLS	May
28	Condition Report of Large Commercial Banks, FRB, H.4.2 (72, 112)	Week Ending June 21
29	Money Stock Measures, FRB, H.6 (85, 102, 107, 108)	Week Ending June 21
29	Factors Affecting Bank Reserves and Condition Statement of Federal Reserve Banks, FRB, H.4.1 (93, 94)	Week Ending June 28
29	Labor Turnover in Manufacturing (Press release), BLS (2, 3, 4)	May
29	Defense Indicators, BEA (525)	May
30	Manufacturers' Shipments, Inventories, and Orders, Census, M3–1 (65)	May
30	Consumer Price Index (Press release), BLS (320–322)	May
30	Real Earnings (Press release), BLS (341)	May
30	Agricultural Prices, Agriculture	Mid-June

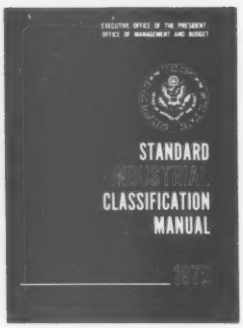
For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Price: 85 cents (single copy). Subscription Price: $9.70 domestic postpaid; $3.30 additional foreign mailing.

1977 SUPPLEMENT TO THE STANDARD INDUSTRIAL CLASSIFICATION MANUAL 1972

This publication is a 15-page supplement to the STANDARD INDUSTRIAL CLASSIFICATION MANUAL. It identifies two new industries, deletes one industry and modifies other industries, titles, definitions, and index items. It reflects the results of the experience of government agencies in using the 1972 Standard Industrial Classification. It serves primarily to make corrections to the 1972 edition in areas crucial to statistical programs. The relationship to the Enterprise Standard Industrial Classification Manual 1974 is also updated by this supplement.

ENTERPRISE STANDARD INDUSTRIAL CLASSIFICATION MANUAL 1974

This 26-page manual is a classification of enterprises (companies, firms, partnerships, or cooperatives) rather than establishments (plants, factories, mines, banks, hospitals, stores, or farms). The format of the manual has been changed so that the one or more Standard Industrial Classification (SIC) industries which define the enterprise industries are shown on the same page. A relationship to the 1968 edition is shown in an appendix.



STANDARD INDUSTRIAL CLASSIFICATION MANUAL 1972

The Standard Industrial Classification was developed for use in the classification of establishments by type of activity in which they are engaged; for purposes of facilitating the collection, tabulation, presentation, and analysis of data relating to establishments; and for promoting uniformity and comparability in the presentation of statistical data collected by various organizations.
The Standard Industrial Classification describes industries covering the entire field of economic activities: agriculture, forestry, fishing; mining; construction; manufacturing; transportation and utilities; trade; finance, insurance, and real estate; personal, business, repair, and other services; and public administration in the 650-page manual.

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